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Vol. XXX LITTLE ROCK, ARK., JUNE, 1933 No. 1

Original Articles

THE ANTERIOR PITUITARY GROWTH AND SEX HORMONES*

HENRY H. TURNER, M. D., F. A. C. P.
Assistant Professor of Medicine, University of Oklahoma School of Medicine
Oklahoma City

Lord Dawson of Penn (1) has stated that the pituitary gland presides over the destinies of ourselves and our descendants, and Harvey Cushing (2) calls it the master gland of the incretory system. Such statements seem well warranted as this minute ruler of the endocrines continues to reveal its secrets.

How far and how rapidly our knowledge of this gland has advanced since the time of Galen and Versalius! The latter described it in 1543, and thought its function to be that of a reservoir for the excrementous slime formed by the brain and later discharged through the nasal passages. One hundred years later Schneider disproved this theory. During the succeeding years various clinical syndromes were presented in which the pituitary was found diseased at autopsy. It was not until 1886, however, that Marie gave us our first comprehensive description of a pituitary syndrome (acromegaly), which he wrongly ascribed to pituitary hypofunction.

In 1894 Schaefer demonstrated a pressor substance in extracts made from pituitaries, which is now known as pituitrin. Lorain (3), in 1871, described a type of dwarfism which was later recognized by Levi (1908) as being due to an insufficiency of the pituitary, and in 1901 Alfred Frolich gave us the first classical description of dystrophia adiposo-genitalis associated with pituitary dysfunction, which had been previously described by Babinski.

In 1886 Victor Horsley, after experimental hypophysectomy on animals, concluded the pituitary necessary for life. His experiments were confirmed by several others, including Cushing. Aschner, Camus and Roussy, Dandy and Reichert took the opposite view. Most of them, however, observed a stunting of growth, lack of sexual development, and obesity following removal of the pituitary, and it was definitely assumed then that the pituitary was concerned with growth, sexual development, and obesity.

This, in brief, is the progress in our knowledge of pituitary function from 1543 to 1920.

The epochial discovery by Evans and Long (4), in 1921, of the growth and sex hormones of the anterior lobe of the pituitary marked the beginning of a new era in endocrinology, and during the past decade research has developed with cinematographic rapidity—no less than thirteen (4, 5, 6) active principles of this gland have been experimentally demonstrated. They are as follows: 1. Growth Hormone; 2-3. Sex Hormone. 4. Maturity Hormone (oral); 5. Specific Dynamic Action; 6. Thyrectropic Hormone; 7. Metabolic Principle; 8. Diuretic and Anti-diuretic Action; 9. Stimulation of Lactation; 10. Non-Protein Nitrogen Reduction; 11. Menstrual Bleeding Factor; 12. Crop Gland Stimulator; 13. Lucke (23) has very recently demonstrated another which he calls the "contra-insulin principle." This, of course, does not mean that there are thirteen distinct hormones; in fact, most authorities agree that there are probably only four: 1. Growth Hormone; 2. Follicle Stimulating; 3. Luteinizing; 4. Thyreotropic; which have definitely been determined as being present.

THE GROWTH HORMONE

The growth hormone was first demonstrated by Evans and Long (4). They prepared a saline suspension of freshly chopped bovine pituitaries, and injected this intraperitoneally into rats. The animal grew rapidly to twice the size of the controls. In a series of dehypo-

*Presented in brief as part of an illustrated clinical lecture delivered before the Arkansas Medical Society at Hot Springs, Arkansas, May 4, 1933.

physectomized rats the subjects remained dwarfed, sexually immature, and became very obese. After a few weeks of injections of anterior pituitary extract they began to grow in length, matured sexually, and compared favorably with the normal controls.

Difficulty was encountered in finding a method of sterilizing this substance and retaining its potency. This was later accomplished to a certain degree by Evans, Cornish, and Simpson. Further progress was made in 1928 by Putnam, Teel, and Benedict (7, 8), who were the first to produce acromegaly in a dog by injections of an alkaline anterior pituitary extract.

Reichert (3) (1928-29) conclusively demonstrated the potency of the growth hormone. By removing the pituitary of a young dog he arrested its development for one year. The animal became obese, the genitals did not develop, and it remained stunted in stature. Then by giving injections of the hormone, he produced a growth in this animal much in excess of the littermate control. Johnson and Hill (3) (1930), using a similar extract, produced overgrowth in mice.

Engelbach (9), in 1931, reported the first case of hypoantuitarism in a human treated with Evans' extract. The patient was a nine-year-old girl. She received 6 cc. of the substance daily for nine months, during which time her height increased 2.7 inches, whereas during the preceding three years it had remained stationary.

Bugbee et al. (5) obtained a sterile product by filtration through asbestos and germ proof porcelain filters. This product (Antuitrin G, Parke, Davis & Co.) retains its potency for several months, and has been available for clinical research during the past year. Schaefer (10) reports excellent results from its use in children under the age of nine months, the results have not been so striking; however, all of my cases were over fourteen years of age, and it seems very probable that the hormone is not as efficacious after puberty as during infancy or early juvenility. Inasmuch as the body attains two-thirds of its height before the age of eight years, it is assumed that this is the period of greatest activity of the somatropic hormone and the most opportune time for replacement therapy. The presence of a thyreotropic principle of the anterior pituitary has recently been demonstrated, which produces a hyperactivity of the thyroid. It has been known for many years that abalation of the hypophysis is accompanied by atrophy of the thyroid. It would, therefore, seem rational in the treatment of these cases of somatic underdevelopment to supplement the pituitary growth hormone with thyroid.

The Sex Hormone

Evans and Long, in 1921, reported a regressive effect of the sex organs as a result of the intraperitoneal injections of a saline suspension of anterior pituitary. Evans (11), however, stated in 1924 that "the hypophysis stands in a necessary relationship to normal function of the thyroid, sex glands, and adrenal cortical tissue." Experimental proof of the effect the prepituitary lobe has on the genital system was presented by Smith (12, 13), and almost simultaneously by Zondek and Aschheim (14). Smith and Engle (15) in a later publication gave a detailed description of the effects produced by implantation of anterior pituitary glands, and gave further evidence of the role played by this gland in the sexual condition of the individual. The sex stimulating factors have been obtained from various sources, and particularly from urine of pregnant women. Its presence in urine makes the Aschheim-Zondek test for pregnancy possible.

Putnam (16), in 1929, reported the separation of the sex hormone and the growth hormone from the anterior pituitary. I have referred to the "sex stimulating factors" because Evans and Simpson (17), in 1929, stated "grounds can be found for the assumption that the stimulant to follicular growth is not identical with that causing luteinization." Engle (18) observed a different response on the ovaries when he used pregnant urine than that which had been obtained by implantations of the fresh gland. Aschheim and Zondek reported the separation of the follicular stimulating substance (Prolan-A) from the luteinizing factor (Prolan-B). Claus (19) claimed to have isolated the former in a crystalline form insoluble in absolute alcohol. Today they are generaly considered as two separate factors.

In considering the effects which these hormones have on the organism we must consider both the direct and the indirect effects. The direct effects consist of the maturation of the Graafian follicles, their rupture, the formation of corpora hemorrhagica, and the produc-

tion of corpora lutea in the female. In the male we have the induction of spermatogenesis. The indirect effects are those derived from the secretion of follicular and luteal hormones formed as a result of the activity of anterior pituitary. The results of these activities are so interwoven that it is not easy to differentiate the actions from each other.

Hartman, Firor, and Geiling (20) postulated the presence of a hormone which is concerned with bleeding during menstruation. Dorn and Sugarman (21) think it possible that in the urine of a pregnant woman carrying a female child there is a hormone which can produce precocious development in the male rabbit. Confirmation of the presence of specific hormones is still lacking. The latter, however, is the basis of the test for the determination of sex in the unborn child.

From this mass of experimental evidence relating to the actions and reactions of the anterior pituitary and other sex hormones, which has been accumulated during the last ten years, a clearer conception of the function of the internal organs of generation has been obtained; however, the mechanism of this function in explaining the human menstrual cycle is still a disputed one.

The formerly accepted hypothesis is as follows: the anterior pituitary stimulates the ovary to the production of follicles. The follicle, which in turn secretes oestrin, stimulates the uterine mucosa to what is known as the early premenstrual stage. This usually occupies about ten days. The endometrium continues to grow, and the graafian follicle ripens and ruptures. Following ovulation, lutein cells begin to form within the ruptured follicle, and this gland continues to produce the oestrin, and, in addition, progestin, the hormone of the corpus luteum, which, as it forms, prevents further growth of the follicle. It also produces the sensitization of the uterine mucosa necessary for the reception and early nutrition of the fertilized ovum. Endometrial growth continues throughout the premenstrual stage, and it was thought that, if fertilization did not occur, disintegration of the hypertrophied mucosa occurred, which was objectively recognized as menstruation. This theory has been subjected to severe criticism by many recent writers. Corner (22) states that many conflicting hypotheses have been put forward and that none of them is free from contradictions and difficulties which cannot be disproved.

The information which has been obtained from experimental work in the laboratories and from the use of these sex hormones in clinical practice forms such a voluminous literature that a review of the latter cannot be attempted in this brief paper. Suffice to say that much has been presented which demonstrates their value in the treatment of sexual immaturity and in many disturbances of the menstrual cycle.

1200 North Walker Street.

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ROENTGENOLOGY AS AN AID IN OBSTETRICS*

W. R. Brooksher, M. D., F. A. C. P.
Fort Smith

The association of roentgenology with the practice of medicine and surgery is universally accepted but its value as a diagnostic adjuvant in obstetrics has not been generally utilized. As compared with the ordinary

*Read before the Arkansas Medical Society, Hot Springs National Park, May 2-4, 1933.

measures of physical examination, the roentgen-ray examination gives such accurate and definite information that it should be regarded as a necessity. A more intimate association of roentgenology and the practice of obstetrics depends upon the enthusiasm manifested by the obstetrician in the aid which the roentgen-ray affords. Diagnostic roentgenology has been accepted and recognized as a harmless procedure. There can be no possible danger to the mother or to the child from the brief exposures required to secure roentgenograms.

Mullerheim first successfully demonstrated the fetus in utero in 1899 but the complete skeleton was not shown until 1913 by Schwab and Weil. In 1903 Sjorgen differentiated for the first time between normal and extra-uterine pregnancy by the roentgen-ray. O'Donnell proved that a definite diagnosis of pregnancy was possible by roentgenological methods as early as the fourth month in 1912. Twins were recognized on the film in 1915 by Judd. Case first diagnosed anencephaly by roentgenology in 1916. McKenze was partly successful in determining pelvic measurements by the roentgen-ray in 1918.

It is the purpose of this discussion to indicate wherein roentgenological study of the pregnant woman is of help to the physician. The conditions in obstetrics for which the roentgenological method of diagnosis may be applied as an adjunct are the following, the classification having been proposed by Matthews (1):

I. Those relating to the maternal pelvis:
   1. Deformed pelves (all varieties).
   2. Pelvic measurements, especially the superior strait.
   3. Bony or calcified tumors of or in the pelvis.
   4. Separation of the symphysis.
   5. Amount of healing after pubiotomy.

II. Those relating to intra-uterine pregnancy:
   1. Diagnosis of pregnancy before other characteristic signs and symptoms appear.
   2. Early diagnosis of pregnancy (14th to 20th week), when for one reason or another a positive diagnosis cannot be made.
   3. Multiple pregnancy.
   4. Presentation and position of the fetus.
   5. Cephalometry.
   6. Intra-uterine death of the fetus.
   7. Monsters.
   8. Defects and diseases of the fetal skeleton.
   9. Illegitimacy.
   10. In the obese patient.
   11. Prior to cesarean section to determine if the child is normally formed.

III. Those relating to pelvic tumors simulating pregnancy:
   1. Fibroid tumors of the uterus and pregnancy at or beyond the sixteenth week.
   2. Myomata uteri, simulating pregnancy.
   3. Ovarian cysts, particularly dermoids.

IV. Those relating to extra-uterine pregnancy:
   1. Tubal pregnancy.
   2. Abdominal pregnancy.

V. Miscellaneous conditions:
   1. Spontaneous version.
   2. Pseudocyesis.
   3. Mechanism of labor.

Of these conditions which serve as an indication for roentgenological study, the most frequent employment will be found: (1) for positive diagnosis, (2) to determine presentation and position, (3) to determine the presence of multiple pregnancy, (4) to demonstrate monsters, (5) to determine intra-uterine fetal death, (6) to ascertain viability prior to cesarean section, (7) as an aid to diagnosis in the obese patient and (8), to visualize deformed pelves. In each of these conditions some doubt may remain as to the correctness of the diagnosis after the usual methods of study have been performed.

The principal technical difficulties are: (1) the thickness of the maternal uterine and abdominal walls, (2) respiratory movements of the mother, (3) the amniotic fluid, which is radio-opaque, (4) insufficient density of the fetal bone structures, (5) fetal movements and (6) the circulating blood in the uterus and placenta, which has been estimated to absorb about 60 per cent of the rays.

In the first group of the classification proposed the bony pelvis may be adequately and accurately visualized. The details of bony deformations and the actual relative size of the fetal head and the pelvic outlet may be studied. Deformed pelves are a definite con-

tributing factor in the production of intracranial injuries of the new-born and the significance of their recognition is evident. Simple roentgenology will enable the obstetrician to clearly observe the gross deformities of the pelvis which cause dystocia, such as hip disease, osteomalacia, spondylolisthesis and the rachitic pelvis. In addition to identifying the various pelvis deformities, new growths, whether primary or secondary, may be recognized. Roentgen-ray pelvimetry provides the only means of measuring all the inlet diameters in an accurate manner. This value is of interest because the pelvic inlet far more frequently offers serious obstruction to delivery than does the outlet. Numerous methods are in use for the determination of these measurements but will not be discussed here.

GROUP II.

Early Diagnosis. The Ascheim-Zondek test with its surprising accuracy has made the early diagnosis of pregnancy a clinical laboratory procedure. For various reasons, however, it may be advisable to obtain the positive diagnosis by means of roentgenological study. The film diagnosis is increasingly positive after the fourteenth week and court decisions support it as unanswerable after the fifth month.

Multiple Pregnancy. The diagnosis of multiple pregnancy, especially during the earlier months, presents many difficulties. In these the roentgen-ray examination gives positive findings. The method is especially valuable in obese patients, where there may be difficulty in hearing two fetal hearts or palpating a multiplicity of soft parts. Conversely, the same fetal heart may be heard in widely separated locations, leading to an erroneous diagnosis of multiple pregnancy. Moreover, the roentgenogram will show the relative position of each fetus to the other and to the maternal parts.

Presentation and Position. Roentgenograms after the sixth month distinctly show the presentation, position and posture of the fetus. With good technic in later months, the fetal skeleton is shown in its entirety. Even in skilled hands, the diagnosis of presentation and position is often difficult because of adiposity or increased fluid. Here the roentgen-ray is of decided help. Mal-positions and mal-presentations may be studied on the film and this information will assist in the decision as to management of the case. By the routine roentgen-ray examination the roentgenologist can now obtain more information from his single examination as to the size, form and position of the fetus in utero and the relationship of the fetal head to the pelvic canal than the obstetrician can possibly tell from his most careful and painstaking examinations, which have extended over months. For a complete orientation of the fetus at least two projections are necessary, which will give not only a true visualization of the presentation, but which will also demonstrate the relation of the fetal parts to each other and to the maternal pelvis and spine. The employment of the roentgen-ray will obviate the necessity of many vaginal examinations, the elimination of which may markedly reduce the death rate from puerperal infection.

Cephalometry. It is just as important to know the size of the child's head as to know the dimensions of the pelvic inlet, for the delivery of a hydrocephalic child through a normal pelvic canal may be just as impossible as the delivery of a normal child through a contracted pelvis. Walton (2) has devised a method for the estimation of these measurements.

Intra-uterine Fetal Death. Spalding described in 1922 what is considered a pathognomonic sign of intra-uterine fetal death: overlapping of the fetal skull bones and decreased radius of the curvature of the head, due to post-mortem shrinkage of brain tissue. The sign has been demonstrated as early as the fourth day but usually requires ten to fourteen days for its development. This is fairly reliable evidence provided the mother is not in labor and that care has been taken to exclude pseudo-overlapping due to overlying fontanelle images.

Fetal Abnormalities. Fetal abnormalities are not usually diagnosed clinically but are readily demonstrated by the roentgen-ray. The recognition of the presence of a monster would call for the induction of labor in order to spare the mother the burden of continued pregnancy and the chagrin of delivering a monster at term. Any pregnant woman giving a history of having previously given birth to a monster; one presenting an acute or unusual enlargement of the abdomen, or a fetal mal-position or mal-position of the placenta; one in whom cesarean section is contemplated; or one in whom the fetal head is not distinct

and apparently normal to the palpating fingers, should have a roentgen-ray examination.

Fetal Skeletal Defects. Numerous defects of the fetal skeleton as well as disease processes in the fetal bones may be recognized on the roentgenogram, among them being spina bifida, fractures and syphilis.

Illegitimacy. The roentgen-ray will frequently permit establishment of the correct diagnosis in cases of illegitimacy where other examinations would not be permitted.

Prior to Cesarean Section. The best evidence of a normally developed fetus prior to cesarean section is obtained by the roentgen-ray. Except in grave emergency, the examination should be routine. The operator may thereby avoid much embarrassment or hasten the termination of pregnancy in toxemias. By the roentgen-ray method, it is also possible to arrive at a fairly correct estimation of the age, and therefore, the viability of the child. The presence of the upper tibial epiphysis indicates, in the great majority of cases, that the child has passed the ninth fetal month.

GROUP III.

A positive diagnosis of pregnancy complicating fibroids of the uterus or a differential diagnosis between pregnancy and other pelvic tumors may be made by the roentgen-ray, provided the pregnancy is beyond the sixteenth week. This requires skilled interpretation, however, lest shadows of a calcified fibroid or the presence of bone in a dermoid cyst be confused with pregnancy.

GROUP IV.

Extra-uterine Pregnancy. From the size and abnormal relation of the fetal parts to the uterine shadow it is at times possible to make a definite roentgenological diagnosis of extra-uterine pregnancy. Unless the uterine shadow is clearly seen on the roentgenogram, however, an abnormal position of the fetus alone is insufficient evidence for the diagnosis.

GROUP V.

The last group serves to include conditions not discussed in the preceding groups. The positive diagnosis of pseudocyesis is often difficult and in the past, has been made by the administration of an anesthetic. After the sixteenth week, pregnancy could be ruled out by the roentgenogram of the abdomen. For the purposes of teaching, roentgenograms of the mechanism of labor as well as of the positions and presentations offer a visual impression not to be otherwise obtained by the student.

In conclusion, it may be said that the physician practicing obstetrics will do well to keep in mind the help to be obtained from the roentgenologist in solving many of his problems of diagnosis and management. Roentgenology substitutes a visual demonstration, more accurate and definite, for the impression gained by palpation, auscultation and the like.

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ROENTGEN VISUALIZATION OF LIVER AND SPLEEN WITH THORIUM DIOXIDE SOL, WITH PARTICULAR REFERENCE TO PREOPERATIVE DIAGNOSIS OF CARCINOMATOUS METASTASES TO THE LIVER

Lester G. Erickson, Dubuque, Iowa, and Leo G. Rigler, Minneapolis (Journal A. M. A., June 3, 1933), state that hepatosplenography is of value as a routine preoperative examination in malignant cases. The authors have used this procedure in eighty-two clinical cases of various types without apparent harm and with gratifying results. It has been found to be of great value in gastro-intestinal malignant growths preoperatively. In the interpretation of roentgenograms, when in doubt a negative diagnosis is made. Certain phases of this procedure, which heretofore have not been emphasized, are: 1. The advantage of delayed elimination in the follow-up examination for the demonstration of the development of metastases. 2. The danger of delayed radioactivity of thorium after several years. 3. Its particular value in preventing needless surgery in cases of malignant growths of the gastro-intestinal tract. 4. The fact that roentgenograms should not be taken sooner than twenty-four hours following the last injection. 5. The observation of an area of rarefaction constantly seen in the region of the gallbladder fossa. 6. The unusual accuracy of the procedure.

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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Editorial

INFORMATION REGARDING THE MEDICAL, NURSING AND HOSPITAL LIEN ACT

Hon. Peter A. Deisch, Helena

Act No. 130, of the laws of 1933, approved March 21, 1933, provides, on compliance with its terms, a lien "for the value of the services rendered or to be rendered," at the express or implied request of that patient or someone acting in his behalf, for the relief of a patient injured through the fault of a third persons, on any claim, right of action, or money, to which the patient is entitled because of his injuries.

A physician, nurse or hospital, may establish his lien in either of two ways, or both: He may serve on the patient a written notice of his claim, to be later described. He must serve a copy of that notice on each person or corporation against whom the patient has a claim arising out of his injuries (1) on the person alleged to be responsible for the injuries, (2) or on the patient's insurer, or (3) on both.

Claimant of a lien must then file in the office of the clerk of the circuit court, *in the county in which the services are being rendered,* a copy of the notice he has served, verified by affidavit to the effect that the notice and the required copies thereof have been served. The claimant need not wait until his services have been completed before he serves the notice and copies thereof; he may serve the notice and copies thereof after his first call, and thus preserve his interest intact. If he serves such notice and copies thereof before the completion of his professional service, he must on the completion of his service, serve a supplementary notice on the parties designated above, and file a copy of that notice in the office of the circuit clerk.

If a patient has instituted an action to recover damages against the wrongdoer, or against any insurer, the claimant may file with the clerk of the court *where the action is pending* a notice of the physician's claim of lien, authenticated under oath. If a physician does this, he need not serve a notice on the patient, or on the wrongdoer, or insurer, although there is no reason why he should not do so if circumstances so indicate. A suit may have been filed, for instance, against the

wrongdoer, and yet the patient may have a claim against his own insurer that is in no way related to the suit. In that case it may be expedient for the physician to file a notice of his lien with the insurer, notwithstanding the fact that he has previously filed a notice with the court.

The notice shall contain these facts: (a) On whose behalf it is filed, and whether he claims as a practitioner, nurse or hospital. (b) The name and address of the person through whose fault the injuries were inflicted, and if a lien is claimed against an insurer, the name and address of that insurer. (c) The name of the patient, his usual address, and his whereabouts when the notice is served, if elsewhere than at his usual address. (d) The time when, place where, and circumstances under which the alleged fault or neglect of the wrongdoer occurred, and the nature of the injury. (e) If the services have been completed, the amount for which his lien is claimed. The notice must be supported by an affidavit of the claimant showing that the facts stated of the affiant's own knowledge are true, and that the facts stated on information and belief, he believes to be true.

If the services have not been completed when the notice is served, and the amount for which a lien is claimed is therefore not stated in the notice, the claimant must, within sixty days after the termination of his service, *serve a supplementary notice* on each person previously notified, and again file a copy of the notice in the court in which the previous notice was filed, showing the amount claimed under the lien.

The notice need not be in any particular form; it is sufficient if it contains the essentials noted above. It may be served in the following ways:

(a) A notice may be delivered to the person on whom it is to be served, or left at his usual place of business or residence with some person of mature years employed or dwelling there.

(b) A notice may be delivered by registered mail, directed to the last known address of the person to be notified, which may be either within or without the State of Arkansas. At the time of mailing, someone having personal knowledge of the facts should make an affidavit that the notice required by the "medical, nursing and hospital lien law" has been enclosed in the letter. When the letter is mailed, a return receipt should be requested, which receipt should be retained as evidence.

A lien once established will afford a certain amount of protection to the claimant. Any person through whose fault the patient was injured, and any insurer by whom the patient is insured against injury resulting from accident, who, after receiving notice of a claim of lien, pays to the patient the full amount of the patient's claim, if that physician has not received the amount due, will be liable to the physician who has established a lien on the patient's claim.

If a lien has been established by filing a claim in an action instituted by the patient against the person through whose fault he was injured, or against the patient's insurer, and if the action be decided in favor of the patient, the court will embody in its judgment such an award to the claimant as the evidence warrants.

Suit must be filed within sixty days, if his claim be not voluntarily settled. The claimant must within 60 days immediately following the day on which the latest notice, or supplementary notice of his claim for lien has been filed in the office of the clerk of the circuit court, institute suit to enforce his lien. Otherwise it becomes void.

Physicians will have to use their best judgment in determining the cases in which they will undertake to perfect liens. Probably a physician will not ordinarily attempt to perfect a lien unless he has grave doubts as to whether or not, without the aid of a lien, he will ultimately receive his fee. The expediency of filing a claim of lien in a case in which the amount involved is small should be carefully considered. If a claim be filed, it will lapse within sixty days after the filing of the last notice in the office of the clerk of the circuit court, unless the physician institutes an action to enforce the claim. To institute an action, it will be necessary to employ counsel and to pay court charges. When the amount involved is small, therefore, a physician will probably, if he files a claim of lien at all, do so without the expectation of undertaking to enforce it by action at law.

(See April Journal for complete copy of the Medical Lien Law for Arkansas.)

AFFIDAVIT TO BE ATTACHED TO COPY OF CLAIM FILED WITH CIRCUIT CLERK

STATE OF ARKANSAS,

_____County.

I, _____being first duly sworn, depose and say that of my own personal knowledge, within and foregoing instrument of writing, is a full, true and perfect copy of a notice and claim of lien served on the_____ day of_____193__, on_____ and on_____and on_____

_____

Subscribed and sworn to before me this_____day of_____193__

_____

Notary Public.

SUPPLEMENTARY NOTICE OF CLAIM OF LIEN

The undersigned_____states that heretofore and on the_____ day of_____193__, he caused to be served upon_____ and _____and _____ a notice of claim of lien as a practitioner, by reason of services rendered to_____ (hereinafter referred to as "patient") whose usual address is_____ in the city of_____Arkansas, arising out of an injury suffered by said "patient" on the_____day of_____193__, at_____ Arkansas, at which time and place the said "patient" was injured under the following circumstances: _____

_____

the nature of said injury being as follows: _____

_____

Said injuries were inflicted through the fault and negligence of_____ whose address is_____

Said "patient" was at the time of said injury insured by_____

This is a supplementary notice of lien (filed under and pursuant to Act No. 130, of the 1933 laws of Arkansas) and the undersigned claimant states that between the_____ day of_____193__, and the_____day of_____193__, he performed services as a practitioner for said "patient" of the reasonable value of $_____ for which amount he claims and asserts a lien in his favor.

_____

STATE OF ARKANSAS,

_____County.

BE IT REMEMBERED, that on this day, before me a Notary Public, within and for the above named county and State, personally appeared_____to me well known, and who in my presence executed the within instrument, and then and there stated that the facts stated herein of affiant's own knowledge are true, and that the facts stated on information and belief he believes to be true, and that the reasonable value of the services so rendered by affiant is the sum of $_____

WITNESS my hand and official seal on this_____day of_____193__

_____

Notary Public.

NOTICE OF CLAIM OF LIEN

To_____

YOU WILL TAKE NOTICE that the undersigned_____ whose address is_____ in the city of_____, Arkansas, has and asserts a claim of lien as a practitioner, by reason of services rendered, and to be rendered to_____ (hereinafter referred to as "patient") whose usual address is_____ in the city of_____, Arkansas, and this notice being served upon him at_____ in the city of_____ Arkansas; arising out of an injury suffered by said "patient" on the_____ day of_____ 193__, at_____ Arkansas, at which time and place the said "patient" was injured under the following circumstances:_____

_____

the nature of said injury being as follows:_____

_____

Said injuries were inflicted through the fault and negligence of_____ whose address is_____

Said "patient" was at the time of said injury insured by_____

The amount for which a lien is claimed by the undersigned is the sum of $_____ (a).

The services rendered and to be rendered under the circumstances set forth above have not been completed, therefore the amount for which a lien is claimed, cannot be stated herein. (b).

A lien as above set forth is claimed under and pursuant to the provisions of Act No. 130, of the 1933 laws of the State of Arkansas.

_____

STATE OF ARKANSAS,

_____ County.

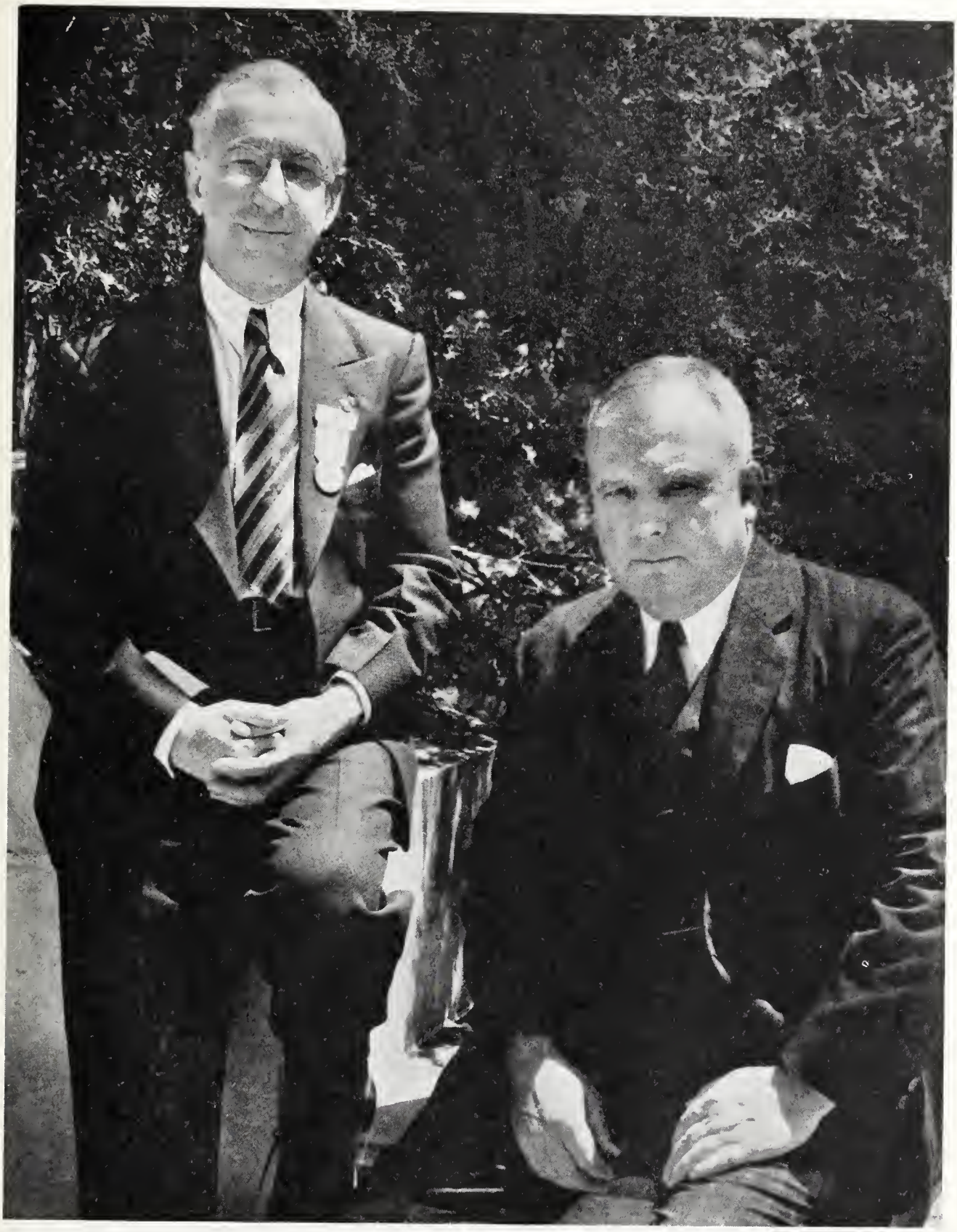
BE IT REMEMBERED, that on this day, before me a Notary Public, within and for the above named county and State, personally appeared the within named_____ to me well known, and who in my presence executed the within instrument, and then and there stated that the facts herein stated of affiant's own knowledge, are true, and that the facts stated on information and belief, he believes to be true.

WITNESS my hand and official seal as such Notary Public on this_____ day of_____ 193__

_____

Notary Public.

(a) (b) Cross out one or the other of the above paragraphs, according to the facts.



Dr. L. J. Kosminsky, Texarkana, who has just taken office as President of the Arkansas Medical Society, snapped with Dr. Dean Lewis of Baltimore, President of the American Medical Association, at Hot Springs during the fifty-eighth annual meeting of the State society at the Arlington Hotel.

Abstract

MEDICINE AT THE CROSSROADS

Harvey Cushing, Boston (Journal A. M. A., May 20, 1933), says: "A recent leader of public opinion openly states that most of those at present dealing with the sick—meaning more specifically the doctor—have their faces turned toward the past. If history but repeats itself, where else but from the past can we learn anything? We certainly can draw little comfort and few admirable lessons from the late present. . . . Lay reformers speak lightly of his code of ethics as something long since outworn, but so far it has prevented him, for one thing, from capitalizing for his own benefit his inventions and therapeutic discoveries. . . . By the combined efforts of both groups, doctor and sanitary official, the expectancy of life has been greatly prolonged —and will be more so before we are through. Yet while we point to this triumph, there are just so many more people who live longer only to be overtaken, the health official with the rest, by unforeseen and unpreventable accidents for which they seek the best surgeon they can find, or by some malady for which they demand the very best physician—like enough a highly trained specialist. . . . Legislation and attempted coercion do not always accomplish what reformers anticipate. . . . There has been much idle talk, too, regarding scientific medicine and the modern scientific doctor who with his ingenious appliances and mathematical exactitude has come to supplant the old-fashioned 'practical' doctor. . . . As a matter of fact, it will be a great shock to laymen to learn that a great part of what is called scientific medicine is a fetish and wholly unscientific. . . . The practice of medicine is an art and can never approach being a science even though it may adopt and use for its purposes certain instruments originally designed in the process of scientific research. . . . The explanation of the doctor's seeming want of business acument lies partly in the restraining influence of his time-honored precepts of conduct, partly in his preference to hold the respect of his own kind rather than of the financial world, and partly because inherently he's that kind of person else he wouldn't have gone into medicine in the first place. . . . A form of legal racket which thrives on the insurance system at the expense of the profession is the rapidly spreading prevalence of malpractice suits, particularly against surgeons, for imaginary grievances sustained, more often than not, as the outcome of some operation done purely for charity. . . . Whether we have temporarily overstressed science and research in medical education and let it come to enslave us is not for any one to say. If it has, the day will arrive when of itself the pendulum will swing and there will be a corrective reaction, for there usually is to whatever we overdo. . . . There are two sides to every question, and inability to see both constitutes the fundamental weakness of all theories and particularly those relating to the biologic and social sciences. . . . But however this may be, those who deal with the science of society deal with something that actually does pulsate with so short a time cycle that conditions almost from year to year are never quite the same, so that our theories of today are likely to need modifying tomorrow."

Personal and News Items

Dr. Carl A. Rosenbaum of Little Rock has moved to McGehee.

Dr. W. B. Grayson and family of McGehee have moved to Little Rock. Dr. Grayson has assumed his new duties as State Health officer.

It is with much regret that we report the death of Dr. C. H. Newkirk of Corning and that of Dr. Marshall Allen of Walnut Ridge. Both were former members of our society.

Twelve members of the Washington County Medical Society gathered in a call meeting at Fayetteville to hear Dr. Seale Harris of Birmingham, Ala., on Hyperinsulinism and Its Relation to Epileptiform Seizures, on May 18. Out-of-town visitors included: Drs. Amis, Brooksher, and Goldstein of Fort Smith; Drs. McNeil and Moore of Rogers; Drs. Hughes and Wilson of Siloam Springs. Dr. H. D. Wood introduced the speaker.

The graduation exercises of the fifty-fourth annual commencement of the University of Arkansas, School of Medicine, was held in the Little Rock High School, June 5, 1933.

Dr. Will H. Mock of Prairie Grove was the principal speaker.

Dr. F. Vinsonhaler, dean of the school, awarded degrees, conferring the degree of medicine on forty-five students, the degree of bachlor of seienee in medieine on eleven students and presented certificates to twenty nurses.

The Tri-County Clinical Society, composed of Hempstead, Clark and Nevada Counties, met in Hope, May 27. The following officers were elected: President, Dr. Don Smith of Hope; secretary, Dr. A. L. Buchanan of Prescott; vice-president for Hempstead County, Dr. A. J. Neighbors of Hope; vice-president for Clark County, Dr. Tom Ross of Arkadelphia; vice-president for Nevada County, Dr. Jake Hesterly. The next meeting of the society will be held in Gurdon, June 29.

Dr. C. K. Townsend presided at the meeting. The program consisted of addresses by Dr. T. F. Kittrell and Dr. Rowe Smith of Texarkana. A symposium was conducted by Dr. Don Smith of Hope, Dr. H. A. Ross of Arkadelphia and Dr. O. G. Hirst of Prescott.

We acknowledge with thanks a booklet published to mark the occasion of the opening of the Merck Research Laboratory, of which the formal dedication ceremonies took place on April 25th. Sir Henry Dale, Director of the National Institute for Medical Research, of London, England, delivered the principal address to over six hundred guests.

In addition to illustrating and deseribing the laboratories, the book contains in full Sir Henry's address, "Academie and Industrial Research in the Field of Therapeuties," and excerpts from Mr. Merck's speech of welcome. This booklet can be found on the reading table, at the library, University of Arkansas School of Medicine.

NINTH DISTRICT MEDICAL SOCIETY MEETING

Twenty-eight physicians from Harrison, Yellville, Jasper, Cotter, Everton, Western Grove, Alpena Pass, Eureka Springs, Green Forest and Berryville attended the semi-annual meeting of the Ninth Councilor District of the Arkansas Medical Society held at Berryville, June 6.

The afternoon program consisted of addresses by Drs. G. W. Reagan, E. H. White and S. C. Fulmer of Little Rock; Dr. J. F. John of Eureka Springs; Dr. I. F. Jones of Fort Smith, and Dr. R. P. Spurlin of Berryville. Mrs. A. L. Carter and Mrs. J. S. Bohannan were hostesses in the afternoon at the home of Mrs. Carter to twenty-three visiting physicians wives with an informal party.

A banquet was held in the evening. Postmaster J. E. Simpson gave the address of welcome and the response was by Dr. J. R. Parker of Eureka Springs.

Dr. J. H. Bohannan of Berryville was elected to suceeed Dr. J. R. Parker. Dr. J. H. Fowler of Harrison was re-elected secretary-treasurer.

NEWS OF OTHER DAYS
FIFTY YEARS AGO

(Arkansas Gazette, June 2, 1883).

THE MEDICO'S BALL

The ball and supper, complimentary to the State Medical Society, at its eighth annual meeting in this city, tendered by our local physicians, brought together a large number of persons that combined in a marked degree the beauty, wealth, intelligence, refinement and culture of our State, that filled Concordia Hall as it was never filled before. The Committee of Arrangements was: Drs. L. R. Stark, J. M. Colburn, R. B. Christian, T. E. Murrell, William Thompson and E. Meek, with Dr. Claiborne Watkins as its chairman. The invitations showed novelty and neatness —a miniature pair of saddlebags of paper, one of which bore the seal of the State, the other the words, "The Little Rock Doctors— 1883." In each was found a homeopathic vial, one containing the names of the Arrangement Committee, the other the worded invitation. Dancing was the main feature of the evening. The order of the dances on a cute imitation, in paper, of a physician's lancet, with silken cord and covered peneil attached, was a very long one, but even these could have been fulfilled, if extra round dances had been omitted. Here the sight that met our eyes was one not soon to be forgotten. It formed one of rare beauty. Seldom have there appeared at one time such a wealth of handsome costumes. Jewels sparkled from the fingers, wrists and necks of their lovely owners. Taken as a whole it was a most creditable affair.

—*Arkansas Gazette, Little Rock, June* 2, 1933.

CONTRACT PRACTICE

The Judicial Council of the American Medical Association recommends that chapter II, article VI, section 2, now reading "It is unprofessional for a physician to dispose of his services under conditions that make it impossible to render adequate service to his patient or which interfere with reasonable competition among the physicians of a community. To do this is detrimental to the public and to the individual physician, and lowers the dignity of the profession" be revised by adding the following:

By the term "contract practice" as applied to medicine is meant the carrying out of an agreement between a physician or a group of physicians, as principals or agents, and a corporation, organization or individual, to furnish partial or full medicine service to a group or class of individuals for a definite sum or a fixed rate per capita.

Contract practice per se is not unethical. However, certain features or conditions if present make a contract unethical, among which are: (1) When there is solicitation of patients, directly or indirectly. (2) When there is underbidding to secure the contract. (3) When the compensation is inadequate to assure good medical service. (4) When there is interference with reasonable competition in a community. (5) When free choice of a physician is prevented. (6) When the conditions of the employment make it impossible to render adequate service to his patients. (7) When the contract because of any of its provisions or practical results is contrary to sound public policy.

Each contract should be considered on its own merits and in the light of surrounding conditions. Judgment should not be obscured by immediate, temporary or local results. The decision as to its ethical or unethical nature must be based on the ultimate effect for good or ill on the people as a whole.

Auxiliary Notes

Forty-six members and guests enjoyed the Dutch Treat luncheon of the Woman's Auxiliary to the Pulaski County Medical Society May 17th at Lakeside Country Club. After the annual report given by Mrs. Pat Murphey, retiring president, the new officers were installed. Officers are: Mrs. Byron A. Bennett, president; Mrs. J. B. Crawford, president-elect; Mrs. N. W. Reigler, first vice-president; Mrs. M. Yeamon, second vice-president; Mrs. R. A. Law, secretary; Mrs. W. E. Gray, Jr., treasurer; Mrs. R. T. Smith, publicity; Mrs. R. H. Pryor, parliamentarian, and Mrs. C. C. Reed, historian. Mrs. H. A. Higgins and Mrs. A. C. Shipp were awarded the attendance prizes for the year. Guests for the day were Mrs. John F. Weinmann, Mrs. George H. Burden, Mrs. Doyle Fulmer, Mrs. A. E. Watson of Portland, Ore., guest of Mrs. C. W. Garrison, and Mrs. M. A. Johnston of Houston, who is visiting her daughter, Mrs. Higgins.

ANNUAL REPORT

The Arkansas State Auxiliary has an Advisory Board composed of four doctors, appointed by the President of the Arkansas Medical Society, all of our county auxiliaries have advisory councils. Having all of the committees of the National Auxiliary except Archives, the historian will be chairman of the Archives Committee.

One new tri-county organization was reported.

The auxiliary has a very attractive as well as a very complete scrap book and history.

The uniform filing card system has been adopted this year, filing cards have been sent to every county auxiliary, sixteen counties in all.

The Jane Todd Crawford Memorial project has been promoted for the first time this year.

A generous space in the Arkansas Medical Journal is alloted to the anxiliary and the chairman has been very active in placing items of interest in it.

Through the joint counties auxiliary (Bowie and Miller Counties) the auxiliary has a member who is chairman of The Child Health and Protection Association, a follow-up of The White House Conference, the auxiliary members assisted Mrs. Walter McNab Miller and Miss Jean Pinckney of Austin, Texas, in organizing this association.

The joint counties auxiliary (Bowie and Miller) have furnished officers for the Southern Medical Auxiliary, State presidents, treasurers and secretaries for Arkansas and Texas, also one member is serving on a committee of the auxiliary of the American Medical Association and two members are presidents-elect for Arkansas and Texas for 1934-35.

The greatest accomplishments are through the contacts made with lay organizations, all of the auxiliary members are on many committees in other organizations, thus making known the type of health work being promoted by organized medicine.

The following is a list of outstanding activities accomplished by the auxiliaries during the past year.

1. Hygeia quota for the year was seventy and has been oversubscribed by ten subscriptions.

2. Hygeia has been placed in public schools, Y. M. C. A.'s, Y. W. C. A.'s, and public libraries throughout the State.

3. Sponsoring the sale of Christmas Seals for the Anti-Tuberculosis Society.

4. Furnished health literature and speakers for P. T. A. programs.

5. Making of obstetrical kits for Junior Service League.

6. Contributed to the milk fund for undernourished school children.

7. Layettes were made and donated to worthy and needy mothers.

8. 487 sets of the National Public Health envelopes have been distributed throughout the State of Arkansas to official county health units and various agencies and workers interested in this particular work.

9. The Ilse F. Oates Student Loan Fund is supported by contributions.

10. Each auxiliary has had at least one social evening with its Medical Society.

In spite of the present business conditions the President has visited several of the county auxiliaries during the year, has held executive board meetings and endeavored to cooperate with the National Auxiliary in every way possible.

Respectfully submitted,

Mrs. L. H. Lanier, Texarkana,
Recording Secretary, 1932-33.

Mrs. P. H. Phillips, Ashdown,
President, 1932-33.

AT THE TOP OF THE CLASS

Answer of a high school student in a New York exam whence M. A. L. reports it.

Question—Mention some of the ways in which bacteria are useful to man.

Answer—Some bacteria are useful because they cause disease and doctors treat these diseases and make money by it.

Obituary

BRAND, W. M.—Dr. W. M. Brand of Springdale, aged 51, died May 15, 1933. Surviving him are his wife, two daughters, Miss Ruth Brand of Springdale and Mrs. Ethel Forsee of Lead Hill; three sons, Bill of Forsythe, Mo., and Walter and Ward of Springdale, and a sister, Mrs. G. L. Jackson of Harrison.

MOORE, LUTHER EDGAR—Dr. L. E. Moore of Searcy, aged 72, died June 4, 1933. He was born in Cleburne County, moving to White County when a child. He had practiced medicine for nearly fifty years, and was physician for Galloway College for thirty-five years. He was secretary of the Galloway Board of Trustees and a steward of the First Methodist Church of Searcy.

Surviving are his wife, three sons, Dr. Booth Moore of Little Rock and L. E. Moore, Jr., and Donald Moore of Searcy, and two brothers, Howell Moore of Searcy and Luther Moore of Cleburne County.

County Societies

HEMPSTEAD COUNTY

(Reported by A. C. Kolb, Sec.)

The Hempstead County Medical Society met on Thursday night, May 18, in Hope. A banquet was served at the Capitol Hotel.

In addition to the regular membership, the following physicians attended the meeting: Dr. L. J. Kosminsky, Texarkana, President of the Arkansas Medical Society; Dr. R. B. Robins, Camden, Secretary of the Ouachita County Medical Society; Drs. M. J. Kilbury and A. G. Cazort, Little Rock; Dr. Ruel Robins, Texarkana, and Dr. J. S. Rinehart, Camden.

Dr. A. C. Kolb of Hope was elected secretary-treasurer to fill out the unexpired term of Dr. F. W. Pickell, who recently moved to Brewton, Alabama.

A most interesting program was rendered by Dr. R. B. Robins of Camden, Dr. M. J. Kibury of Little Rock, and Dr. L. J. Kosminsky of Texarkana. Other physicians making talks were Dr. Rinehart of Camden, Dr.

Cazort of Little Rock and Dr. Robins of Texarkana.

CRAWFORD COUNTY

(Reported by S. D. Kirkland, Sec.)

The Crawford County Medical Society met in Van Buren, May 23, 1933. Those present: Douglass, Porter and Blackburn of Ozark; Hunt of Clarksville; Gardner of Russellville; Rose, Means, Eberle, Taylor, Gregg, Brooksher, Wolfermann, Goldstein, H. Moulton, E. C. Moulton, Krock, Holt, Blair, Billingsley and Stubbs of Fort Smith; Wigley, Grant and Kirksey of Mulberry; Bruce and Galloway of Alma; Brandenburg of Chester; Engler of Mountainburg; Bourland, Dibrell, Trice, Savery, Stewart, Bennett and Kirkland of Van Buren; Brown, Hoge and Carruthers of Little Rock.

The scientific program presented by the physicians from Little Rock was as follows:

"Cystitis" by T. D. Brown.

"Medical Abdomen" by S. F. Hoge.

"Management of Fractures" by F. Walter Carruthers.

Following the program, a luncheon was served at the Presbyterian Church.

Book Reviews

Asthma, Hay Fever and Related Disorders. A Guide for Patients. By Samuel M. Feinberg, M. D., F. A. C. P., Assistant Professor of Medicine and Attending Physician in Asthma and Hay Fever Clinic, Northwestern University Medical School; Attending Physician, Cook County Hospital, Chicago. Illustrated. Published by Lea & Febiger, Philadelphia.

The growing importance of allergy has created a considerable demand among the public for a simple yet fairly thorough explanation of the subject. For that reason, the author presents this book for allergic patients and their families.

Diseases of Tradesmen. By Bernardino Ramazzini (1633-1714) together with biographical notes translated from the French of Francois Claude Mayer (1928) of Budapest and paragraphs from the preface of Dr. James (1746) of London, and of Dr. James (1922) of New York. The abstracts from 1746 English translation of the Ramazzini work emphasize his comments on dermatological disturbances of workmen. Compiled by Herman Goodman, B. S., M. D., New York City. With which is bound **Silk Handlers' Disease of the Skin.** Being a study of the clinical aspects, and a recital of the search of the cause including notes on the culture of the silkworm. By Herman Goodman, B. S., M. D., New York City. Published by the Medical Lay Press, New York.

This book considers "Diseases of Tradesmen" at some length and closes with a new and interesting study of "Silk Handler's Disease of the Skin." A study of the clinical aspects, and a recital of the search for the cause, including notes on the culture of the silkworm, the handling of the silk from the cocoon to its preparation in the throwing mill for weaving.

Wheat, Egg or Milk Free Diets. With Recipes and Food Lists. By Ray M. Balyeat, M. A., M. D., F. A. C. P., Associate Professor of Medicine and Lecturer on Diseases due to Allergy, University of Oklahoma Medical School; Chief of the Allergy Clinic, University Hospital; Consulting Physician to St. Anthony's Hospital and to the State University Hospital; President of the Association for the Study of Allergy 1930-1931; Director, Balyeat Hay Fever and Asthma Clinic, assisted by Elmer M. Rusten, M. D., M. D., and Ralph Bowen, B. A., M. D., Chief of Section, Dermatology, Balyeat Hay Fever and Asthma Clinic, Oklahoma City, Oklahoma. Published by J. B. Lippincott Company, Philadelphia. Price, Cloth, $2.50.

One of the features of this book is a list of foods that wheat, eggs or milk go into and assembles recipes which are wheat-free, egg-free and milk-free. It describes the role played by food in allergic diseases, and symptoms due to food sensitization.

Chapters on body food requirements; food values, special diets; food lists; height and weight tables, and removable food diary lists covering every day for four weeks.

Crippled Children. Their Treatment and Orthopedic Nursing. By Earl D. McBride, B. S., M. D., F. A. C. S., Instructor in Orthopedic Surgery, University of Oklahoma, School of Medicine; Attending Orthopedic Surgeon to St. Anthony Hospital; Associate Orthopedic Surgeon to Oklahoma City General and Wesley Hospitals; Visiting Surgeon to W. J. Bryan School for Crippled Children, Oklahoma City, Okla. One hundred fifty-nine illustrations. Published by The C. V. Mosby Company, St. Louis. Price, $3.50.

This book will be found useful in importing knowledge to those of unscientific training who are interested in the relief of deformities and physical handicaps, especially of children. The work is divided into thirty-four chapters, in the 280 pages. It is well illustrated.

Medical State Board Examination. Topical summaries and answers. An organized review of actual questions given in medical licensing examinations throughout the United States. By Harold Rypins, A. B., M. D., Secretary, New York State Board of Medical Examiners; member of National Board of Medical Examiners; former President, Federation of State Boards of Medical Examiners of the United States. Published by J. B. Lippincott Company, Philadelphia. Price, $4.50.

This book is offered for guidance in meeting the ordeal of the licensing examination. It covers anatomy, physiology, chemistry, bacteriology, pathology, hygiene and preventive medicine, obstetrics and gynecology, medicine and surgery.

Seline Cataract. Methods of Operating. By W. A. Fisher, M. D., F. A. C. S., Chicago. Professor of Ophthalmology, Chicago, Eye, Ear, Nose and Throat College; formerly Professor of Clinical Ophthalmology, University of Illinois. With the collaboration of Prof. E. Fuchs, Vienna, Austria; Prof. I. Barraquer, Barcelona, Spain; Dr. H. T. Holland, Shikarpur, Sind, India; Dr. John Westley Wright, Columbus, Ohio; Dr. A. Van Lint, Brussels, Belgium; Dr. O. B. Nugent, Chicago, Illinois. 267 pages, 183 illustrations, 112 of which are colored. Published by Chicago Eye, Ear, Nose and Throat College, Chicago, Illinois.

This book pertains to one of the most delicate of surgical proeedures, namely cataract operation.

The author presents several chapters from some of the more prominent surgeons in the world.

In chapter III, Dr. Fisher deseribes "A Method of Aequiring Teehnie." And, in chapter IX he deseribes a new method of removing senile cataraets in capsule. Which is intended to lessen the objections by reducing the complications to a minimum and to suggest a method of beeoming fairly expert before attempting a cataract operation by any method.

The Practice of Medicine (Third Edition). By A. A. Stevens, A. M., M. D., Professor of Applied Therapeutics in the University of Pennsylvania; Visiting Physician to Philadelphia General and University Hospitals; Consulting Physician to St. Agnes' Hospital, Philadelphia. 1,150 pages, illustrated. Published by W. B. Saunders Company. Cloth, $8.00 net.

This book presents deseriptions of the various internal diseases which should aceord with the present state of our knowledge, and, which, though concise, should give physicians the most necessary points in pathology, diagnosis and treatment.

In the revision of this edition the author has added considerable new and important material. Minor changes and elaborations occur on almost every page.

Surgical Clinics of North America. (Issued serially, one number every other month.) Volume 11, No. 4. (Mayo Clinic Number—August, 1931), Octavo of 211 pages with 74 illustrations. Per clinic year, February, 1931, to December, 1931. Paper, $12.00; Cloth, $16.00 net. Published by W. B. Saunders Company, Philadelphia.

Twenty-one clinics are recorded in this the Mayo Clinic Number of the Surgical Clinics of North Ameriea.

A rare but interesting case is given by Drs. Judd, Heimdal and Anderson, namely, "Complete Structure of the Common Bile Duct, Associated with Pregnancy." Obstructive jaundice in any case is a serious condition, and if the patient is in an advanced stage of pregnancy the prognosis without surgical intervention is grave. On the other hand, with operative intervention there is the risk of miscarriage. This risk must be weighed and considered with the mother's increasing biliary cirrhosis. Each factor has arguments in favor of immediate operation and of postponed operation. Since the effect of jaundice on the unborn fetus is not definitely known, it may be assumed that a postponed operation may be harmful to the fetus as well as to the mother. At any rate, complete obstructive jaundice probably impairs the nutrition of the fetus as well as the mother. After careful consideration of all the various factors, namely, complete obstructive jaundice with associated biliary cirrhosis, pregnancy, secondary anemia, and the element of time, immediate operation was advised in this case with successful and happy results.

The Secretary of the County Society will please notify the State Secretary immediately of any error or change in these officers.

DIRECTORY

OF THE

COUNTY SOCIETIES OF THE ARKANSAS MEDICAL SOCIETY

1933

COUNTY	PRESIDENT	ADDRESS	SECRETARY	ADDRESS
ARKANSAS	R. H. Whitehead	DeWitt	J. E. Neighbors	Stuttgart
ASHLEY	W. S. Norman	Hamburg	J. W. Simpson	Hamburg
BAXTER			J. J. Morrow	Cotter
BENTON	J. T. Powell	Gravette	C. L. McNeal	Rogers
BOONE	D. E. Evans	Harrison	W. H. Poynor	Harrison
BRADLEY	C. N. Martin	Warren	Rufus Martin	Warren
CARROLL	J. H. Bohannan	Berryville	J. R. Parker	Eureka Springs
CHICOT	W. D. Easterling	Lake Village	W. A. Craig	Eudora
CLARK	H. A. Ross	Arkadelphia	Chas. K. Townsend	Arkadelphia
CLAY	F. H. Jones	Piggott	J. E. McGuire	Piggott
CLEBURNE				
CLEVELAND	A. J. Hamilton	Rison	W. G. Hancock	Rison
COLUMBIA	W. P. Cooksey	Taylor	C. T. McWilliams	Magnolia
CONWAY	W. H. Bruce	Morrilton	C. E. Etheridge	Morrilton
CRAIGHEAD	J. L. Baird	Marked Tree	H. H. McAdams	Jonesboro
CRAWFORD	J. B. Trice	Van Buren	S. D. Kirkland	Van Buren
CRITTENDEN	T. S. Hare	Crawfordsville	L. C. McVey	Marion
CROSS	Thomas Wilson	Wynne	Ruffin Longest	Wynne
DALLAS	H. A. Cheatham	Princeton	J. E. M. Taylor	Sparkman
DESHA	H. A. Rands	Dumas	J. C. Miller	McGehee
DREW	M. Y. Pope	Monticello	A. S. J. Collins	Monticello
FAULKNER	H. E. Cureton	Conway	Marcus T. Smith	Conway
FRANKLIN	W. H. Bollinger	Charleston	Thos. Douglass	Ozark
GARLAND	W. F. Porter	Hot Springs	G. A. Hebert	Hot Springs
GRANT	R. L. Paxton	Sheridan	O. R. Kelly	Sheridan
GREENE	J. H. Lamb	Paragould	Wm. M. Majors	Paragould
HEMPSTEAD	G. H. Martindale	Hope	A. C. Kolb	Hope
HOT SPRING	J. M. Williams	Malvern	H. L. Brown	Malvern
HOWARD-PIKE	J. M. Holt	Nashville	E. V. Dildy	Nashville
INDEPENDENCE	E. M. Gray	Batesville	M. S. Craig	Batesville
JACKSON	H. O. Walker	Newport	J. B. Ivy	Tuckerman
JEFFERSON	T. J. Cunningham	Pine Bluff	Grace Tankersley	Pine Bluff
JOHNSON	Geo. L. Hardgrave	Clarksville	E. H. Hunt	Clarksville
LAFAYETTE	F. E. Baker	Stamps	F. W. Youmans	Lewisville
LAWRENCE	J. C. Land	Walnut Ridge	H. R. McCarroll	Walnut Ridge
LEE	A. L. Wilsford	Moro	W. B. Bean	Marianna
LINCOLN	G. C. Wood	Grady	C. W. Dixon	Gould
LITTLE RIVER	P. H. Phillips	Ashdown	J. W. Ringgold	Ashdown
LOGAN				
LONOKE	S. S. Beatty	England	O. D. Ward	England
MADISON			F. Youngblood	Huntsville
MARION				
MILLER	R. R. Kirkpatrick	Texarkana	J. F. Williams	Texarkana
MISSISSIPPI	A. M. Washburn	Blytheville	F. D. Smith	Blytheville
MONROE	F. S. Dozier	Brinkley	C. A. Henry	Clarendon
MONTGOMERY	J. B. Stueart	Norman	J. H. McLean	Caddo Gap
NEVADA	O. G. Hirst	Prescott	A. B. Dickey	Prescott
OUACHITA	J. B. Jameson	Camden	R. B. Robins	Camden
PERRY				
PHILLIPS	M. Fink	Helena	Geo. R. Storm	West Helena
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ANNUAL ADDRESS*

WILL H. MOCK, M. D., F. A. C. S.
Prairie Grove
President, Arkansas Medical Society

The contributions to medical science and their service to their fellow practitioners, which have characterized the careers of my predecessors make me deeply conscious of my great responsibility and in an endeavor to measure up to the standards and requirements of the occasion.

Our profession has builded up within this common wealth an organization whose activities have placed it in a position which requires it to continue with advancing time as a guiding influence in the ever-increasing problems of public health, and preventive medicine.

Our profession has builded within this with responsibility, which must be accepted with the same fortitude and vision which motivated the pioneers of our profession (in medical organization in Arkansas) : to visualize the future of the public health problem becomes the duty of this organization, the task we accept willingly since our organization can embody the equipment possessed by us. The history of medicine is replete with scientific achievement and the finest and noblest of the human service.

The dynamic trend makes our requirements constantly more exacting and our problems more difficult, for this reason alone systematic effort is demanded for the future. The education of the public has been intensively carried out during the last decade.

The benefit to mankind is invaluable. It is gratifying to witness the enlightened attitude with regard to health problems, personal hygiene and sickness prevention and an understanding of man's greatest possession—HIMSELF.

It would be unfair to the morals of our citizenship if we failed to inculcate in the minds of our youth economic responsibility for self-preservation, we should force the realization upon every citizen that he is economically responsible for the maintenance of his material possessions and the same responsibility for the conservation of his health must be a definite, constituent of his mental equipment.

The health of the individual and nation is an index to its economic possibilities.

The complex public health problems are best understood by those who have intimate contact with the sick, the examination of most of these plans reveal that they consider only the material benefit for the present financial crises, giving little thought or consideration to the future welfare of the individual physician or the results were he (for economic reasons) forced to desist from his calling.

To educate and equip a physician requires an expenditure of years of study, an outlay of thousands of dollars, in fact it is so expensive that the future may find a scarcity of aspirants to this profession.

Medical education is becoming infinitely more exacting and more complicated. To fit one to embark on this career the requirements today are much greater than in any other profession.

The physician's life requires him to be efficient, that he keep in touch with progress, at a constant great expense, this he will continue to do cheerfully so long as his individualism is assured. Were this identity sacrificed, and economic security endangered, and that fine feeling and understanding and confidential relationship between physician and patient be destroyed, then he will fail to function on a plane consistent with the high purposes and lofty ideals and dignity of our profession, and scientific progress would suffer.

It is mandatory upon us that we object in the interest of human health, to any plan

*President's Address, Fifty-eighth Annual Meeting, Hot Springs National Park, May 2, 3, 4, 1933.

which does not secure to the public a continuance of scientific medical advancement.

Upon the economic security of the medical profession depends the conservation of health. With knowledge of this we must caution those who would revolutionize the practice of medicine and bespeak consideration of our efforts and the benefits the world has already derived from our public health program.

Any successful health plan that is accomplished must be formulated by those whose experience and knowledge of the sickness problem fits them with perspective. We are equipped to do this for our ranks contain those whose talents and experience may be relied upon to bring about the type of solution which is consistent with the same evolution of human progress.

We have always directed our energies toward furthering public health legislation beneficial to mankind.

We have increased and preserved standards of medical education and training. We have never been prompted by selfishness, we have conceived it our duty and will so continue as citizens with special training to advise those who make laws that new legislation must not react to the detriment of human health and happiness. The medical profession of Arkansas provides an ever watchful and willing service to the citizenship of this State.

Its training and traditions define its usefulness and its worthiness to guide and direct our public.

It is a source from which the truth concerning the proper care, prevention, and treatment of disease can be obtained.

To serve the best interests of our public in any direction is the very spirit of its existence and of its record in this noble humane enterprise we are justly proud.

Somewhere among the pages of the Great Book of Life, I have read there is the glory of the sun, the moon, and of the stars, but one star differeth from another in glory. So it is with us as we journey along the pathway of life, we differ one from the other only in the glory of service.

Before me are physicians who render service in the great metropolis amid all its glamour, wealth and luxury. Others render service in smaller cities and well organized communities, others have answered the roll call of duty, and the call of suffering humanity far out in the distance, where the purveyor of good roads and modern convenience has never traveled. His inspiration is the babbling brook, the song of the birds, the fragrant woodland, and the sun-lit hills. But out there just the same is God and humanity. And I believe that the glorious deeds we do and the quality and kind of service we render always tower far above environment or the circumstances of time and place. So if we always do all that we can do, the best we can do it, we will have adopted one of life's best policies.

We must keep faith for it is the inspiration of progress and advancement, for when we go back on the canvas of the past to the early dawn of our civilization, we observe that it was through the faith of our grand pioneers of medicine that it was made possible for our profession to advance to the high plane of scientific achievement that it occupies today. So when the discouraging features in the practice of medicine overtake you, and tend to shake your faith, turn for a moment to thoughts and conditions outside your profession. A short sojourn in other fields will bring you to a realization that the finest things worth while in life are found in the broad range of medicine, and that there is nothing grander or nobler throughout the entire realm of learning or human endeavor. We must be hopeful and courageous, it requires courage to measure arms with the today and succeed. And to enable you to safely pilot the affairs of life through the intricate perils of our present motor driven civilization. Hope is the thing that makes us carry on and exercise watching and waiting. Without it the world would be a dismal whirlpool of despondency. Under all of the most trying circumstances of life it always exhibits its cheerful influence. There are no conditions that can deter us from listening to its sweet illusions. The fettered prisoner in his dark dismal cell, the diseased sufferer on his bed of anguish, the lone homeless, friendless wanderer in the unsheltered land of waste, each clings to the last spark of the everlasting light of hope. We should through our life's work all be messengers of hope.

I stood at the base of the gigantic Teton mountain, as it raised its towering summit till it almost dissolved in the blue of the western sky. From its snowy white peak the icy torrent in crystal streams came plunging and roaring over the precipice, boiling and

foaming it hurled itself into the gulch below, chafing and slashing the banks. On one of the craggy peaks I saw an eagle, the monarch of the air, in his prowess and power extend his mighty pinions and soar away toward the sun till he became a mere speck in the open spaces of the sky. Among the boughs of the graceful birch I saw a Music Throated songster blushing crimson as he bathed his plumage in the gorgeous golden rays of sunshine, and I said: "You have not power such as the eagle, but you have beauty." All around nature was revelling in a magic exhibition of her marvelous creative achievements and mid this scene of silent grandeur, I thought, without power the world would be helpless, without beauty it would be desolate and spiritually dead, and without grandeur there would be a lack of inspiration, and I was reminded of our duties and responsibilities in all the activities and affairs of life.

If we fulfill these duties we must render service, be kind and considerate; loyal, faithful and true to every trust; and when we shall have done these things we will inspire confidence, promote progress, peace and happiness and will add to this dear old world—power, glory, grandeur and beauty.

AORTIC REGURGITATION*

Chailie Jamison, M. D., New Orleans, La.

One hundred years ago, Sir Dominic John Corrigan gave to the world the first, and the classical description, of Aortic Regurgitation. It seems not out of place, therefore, to discuss this important form of heart disease. Though Corrigan limited his description mainly to clinical manifestations and discourses on treatment, Vieussens had described the pathology nearly a century earlier. The clinical recognition of this form of valvular disease is probably easier than that of any other, due to the readily recognized physical signs in which it is so rich.

Who is not, from his student days, familiar with the obvious signs of the widely throbbing arteries, the nod of the head with each systole, the enormously enlarged heart with its heaving, diffuse apex beat, dislocated downward and outward; the diastolic murmur heard best at the base and transmitted toward the apex or the ensiform? The observation of the pulse, with the great difference between the systolic and diastolic pressure, and the frequent presence of those other signs which bear the names of the masters, Corrigan, Traube, Durozier and Flint. To the diagnostic signs familiar to our grandfathers, little of importance has been added except perhaps the recognition of a high blood pressure associated with a high pulse pressure.

The x-ray has but confirmed the knowledge of the cardiac enlargement, though it is true that it often shows enlargement of the aorta, which is not easily recognized by clinical methods. The electrocardiogram has taught us little, but has shown that left ventricular preponderance is practically always present, and that irregularities of conduction of a serious nature are conspicuous by their absence, only extra-systole occurring not infrequently.

It is obvious that the diagnosis can be arrived at simply, easily, and certainly, by the methods of ordinary physical examination, and that expensive or elaborate apparatus is unnecessary.

The incidence of this disease is difficult to estimate except in the vaguest terms. It is the second most common form of valvular disease; Osler states that it is variously estimated to occur in the ratio of thirty per cent to fifty per cent. I think the variability in estimates from many sources is because of the difference in the etiological factor.

Three diseases may cause aortic regurgitation, namely, syphilis, rheumatism and arteriosclerosis. In those communities, therefore, where rheumatism is prevalent, as in the eastern states of the North, or in England, aortic regurgitation will be less common, except in combination with other forms of valvular disease, while in a community where syphilis is prevalent, pure aortic regurgitation will largely predominate. We see this well illustrated in a study of the disease in the South; in negroes, for instance, aortic regurgitation is four or five times as common as any other form of valvular disease, while in the better class of white people the common form of heart disease is rheumatic, and the common type of valvular lesion mitral stenosis, and pure aortic regurgitation is almost unknown.

*Read before the Fifty-seventh Annual Session of the Arkansas Medical Society, held at Little Rock, April 5, 6, 7, 1932.

There also seems to be no question that sex and racial vulnerability play a large part, as the disease is more common in men than in women, and in groups known to have syphilis, aortic regurgitation is three times as common in negro women as in white women. It has long been thought that occupation played a large part in the development of this lesion, those doing heavy labor being more prone to develop it, and it is very probable that in syphilitic aortic regurgitation early treatment must play a very large part.

The incidence of the arteriosclerotic form is about equal everywhere, and does not seem to be modified by anything except the prevalence of sclerosis.

Reflux at the aortic orifice, due to arteriosclerotic changes in the valves, is quite common, but never occurs without stenosis. It is a disease of the aged, and is really only a part of the general vascular selerosis. If these two points are kept in mind, the recognition clinically is assured; and such recognition is important in a negative sense, so that this form of benign valvular disease may not be confused with the other more serious types. Prognosis here depends on the general arteriosclerotic changes, and on the extent of such changes in the coronary vessels, and is little influenced by the valvular lesion. No treatment other than that due to the age of the patient is indicated. When congestive heart failure occurs as the result of arteriosclerotic heart disease, large doses of Digitalis, given in an effort to bring about rapid digitalization, have given me poor, and on several occasions, disastrous results; small doses, and slow digitalization, are usually efficacious and without risk.

I have never found that these older cardiacs (arteriosclerotic group) required the strict bed rest that is indicated in other cases, with a different etiology behind the failure; usually chair rest, with a few days only in bed, is all that is necessary to re-establish comfortable compensation. Nature, through the ravages of age, has usually limited activity to a desirable extent.

Rheumatic disease of the aortic valves is by no means rare, though this fact has been lost sight of in many communities where acute rheumatic fever is uncommon. It is exceedingly rare for the disease to manifest itself in these valves alone, and it is nearly always associated with disease of the mitral valves. When the aortic valve is affected, stenosis and regurgitation are the common manifestation, and pure aortic regurgitation should never be regarded as rheumatic, unless the proof is overwhelming. This form of rheumatic valvular disease, like all forms of rheumatic heart disease, occurs in the young, and is seen in children, at adolescence, and only as a residual in adult life, though, of course, progression of the disease may occur in the later years if there are repeated bouts of rheumatic infection. The multi-valvular character of this condition, the age of the patient and a history indicating rheumatic infection make the diagnosis not difficult. It may be added that in these days of periodic, insurance, school and other forms of group examinations, we find very commonly that the adult with such valvular disease frequently knows that this disease has existed since childhood or youth, and this fact alone is of very great significance. It cannot be too strongly emphasized that rheumatic heart disease, in all of its forms, is a disease of the young. The prognosis of rheumatic aortic disease, even when combined with extensive mitral disease of the same nature, is compatible with a long life, if the causative agent has become inactive, if the heart muscle has not been too extensively damaged, and if obliterative pericarditis does not exist. When, however, the disease is only a manifestation of a carditis which is at times quiescent but flares up at irregular periods, the prognosis must be cast in a more serious role.

The preventive treatment of rheumatic heart disease is synonomous with the prevention of acute rheumatic fever. At the present time this is based on the removal of the tonsils, attention to the sinuses and teeth, and eradication of less important foci in children of school age, and too much cannot be said in praise of the efforts directed toward this end by the various health and philanthropic organizations, who make the supervision of the health of school children their business. Sufficient material is not yet available, and sufficient time has not yet passed, to state with accuracy the efficacy of these measures in preventing rheumatic disease of the heart. The treatment of this manifestation of rheumatism does not differ from that of the same disease affecting the mitral valves alone, be-

fore congestive heart failure sets in; perhaps no greater mistake is made in the management of heart disease than to make an invalid of the child or young adult with an obsolete rheumatic valvular lesion by putting such individuals at complete rest, the exhibition of cardiac drugs and gloomy prognostications concerning the heart. If the state of the myocardium is good, as shown by response to effort, the presence of valvular disease is of very little moment, and all that is necessary on the part of the medical attendant is periodic observation and reasonable advice as to the limitation of physical work. When congestive failure comes about, it responds to the usual routine treatment, and large doses of Digitalis given over a short period (rapid digitalization) has been the method of choice in my hands, and in the majority of instances the results are startlingly good. As in the congestive failure secondary to rheumatic heart disease of any form repeated failures occur, but as frequently compensation takes place, under proper management. In this form of aortic disease auricular fibrilation is sometimes seen, and is always indicative of impending congestive heart failure. Angina pectoris is no more frequently seen here than in any other form of rheumatic heart disease. I have never seen a case of aortic regurgitation in the negro that I could regard as rheumatic, either clinically or in the post-mortem room. In the white people of the South, however, it is not an uncommon disease, except in the pure form.

Of the manifestations of cardio-vascular syphilis, aortic regurgitation is the most important; in this type of the disease the pure form of regurgitation is usually encountered, and stenosis may, or may not, occur with it. Syphilis almost never attacks the mitral valve, though it is important to recognize that the Austin-Flint murmur is heard at the apex in a large percentage of cases. The disease occurs during middle-age, from 30 to 40 or 50, and when such a lesion is found at this age syphilis should be the diagnosis until absolutely disproved. In groups known to have syphilis, aortic regurgitation is three times as common in negro men as in white men, and twice as common in negro women as in white women. It is estimated that of those people afflicted with syphilis, fourteen per cent of whites have aortic disease and over thirty per cent of the negroes. The valvular lesion may be present in an easily recognizable form from two to thirty years after is not incompatible with years of heavy labor, the primary lesion. Syphilitic aortic regurgitation, before congestive heart failure sets in, but once congestive heart failure has taken place, the prognosis is absolutely bad, death usually occurring within fourteen months. Anginal pains are far more common in this form than in the others described, but this statement applies only to white people afflicted with the disease, as the negro is remarkably free from angina. This form of valvular disease is a frequent cause of nocturnal dyspnoea, paroxysmal in character, and often referred to as cardiac asthma. Auricular fibrilation is almost unknown, and extra-systole is the cardiac irregularity usually encountered.

The treatment of this disease falls, very naturally, under three distinct heads: first, preventive; second, of the developed valvular lesion, without heart failure; third, of the heart failure.

In considering the preventative treatment, it would seem reasonable to believe that the adequate treatment of early syphilis would be the answer, and the idealist may take the stand that the prevention of syphilis is the only true answer. As practical men, however, we cannot take such idealist seriously until he is perpared to give a convincing demonstration, of which there seems no likelihood, so long as faith is placed in the triumph of moral teachings over natural impulses, and adequate venereal prophylaxis remain untaught. If we grant then that men and women will continue to contract syphilis, are we prepared to say that the early treatment of this infection will prevent the valvular diseases which result only too often? Or, is it necessary to conclude that there is a special spirochete with a predeliction for the vascular system? Or, may it not be possible that the heavy metals so freely used in this therapy may themselves be responsible for the vascular injury under consideration? The last question may be answered first; the profession has now been using the heavy metals for so many years that it is entirely safe to say that, whether they be given intravenously or by some other route, many more cases of marked vascular disease should have resulted,

and such has not been the case. The second question has been answered by Stokes, who says that vascular syphilis is four times as common in those syphilitics who received no treatment, or medication only by mouth, than in those who received even partial, though inadequate, modern treatment for the disease in the early stages. Brooks, on the other hand, from a study of autopsies, believes that over 60 per cent of syphilitics die a vascular death, whether well treated primarily or not.

Once the valvular disease has developed, several questions arise: If the patient has had some anti-syphilitic treatment, should further treatment of this nature be administered? If the patient has had no anti-syphilitic treatment, should anti-syphilitic treatment be instituted, and if so, what sort of anti-syphilitic treatment, intensive, or intermittent and long-continued?

I believe that in these cases anti-syphilitic treatment should be confined to iodides, bismuth, intramuscularly, and perhaps mercury; arsenicals intravenously are better never used, but should they seem indicated in some particular case, they should be used in only very small doses, never above .3 gm., and only after the patient has had from six weeks to three months of iodides and bismuth, or iodides and mercury. The dangers of a Herxheimer reaction are very real, and sudden death, or the precipitation of congestive heart failure, are only too likely. After congestive heart failure, are only too likely. After congestive heart failure has set in, the management of the disease should be directed entirely toward the heart failure, and such treatment consists in rest, diuretics and the usual routine regarding diet, purgation, etc., instituted. Digitalis in large doses (rapid digitalization) seems to be absolutely contraindicated. If digitalis is used at all, it should be in small doses, not over ten minims three times a day. Intravenous Ouabain, 1/120 of a grain every twelve to twenty-four hours, may be used in those cases where immediate cardiac stimulation is imperative. Anti-leutic treatment may be begun with iodides before circulatory balance is re-established, but more strenuous treatment should not be instituted in the presence of congestive heart failure. This applies most emphatically to intravenous arsenicals.

Conclusions

The mere recognition of a valvular lesion is not a satisfactory diagnosis, as it does not lead to a correct conception of etiology, prognosis or treatment.

The three main types of aortic regurgitation from an etiological standpoint can usually be recognized. The prognosis of aortic regurgitation varies with the etiology of the disease.

The management and therapy varies radically with the three types.

Syphilitic aortic regurgitation is the common form of valvular disease seen in negroes of the south. Among the white people of the south the rheumatic forms of valvular disease are prevalent, among which may rarely occur, aortic regurgitation, but very seldom alone, and never in the pure form.

DISCUSSION

DR. A. G. SULLIVAN, Hot Springs: Dr. Jamison's very complete survey of aortic regurgitation leaves very little to be added. There might with profit be some discussion of, shall we say, the methods of treatment and most particularly the methods of diagnosis. Under thirty years of age, there will not be very much doubt in the mind of the physician who makes a diagnosis of aortic regurgitation as to what the etiological factor is. Practically all of those cases will be of the rheumatic type. After forty-five, there will not be a great deal of doubt of the diagnosis etiologically because most of these conditions will be due to syphilis. In the age group between thirty and forty-five there may be some considerable doubt. That will hold true particularly if the Wassermann test is negative. Bearing in mind the points which Dr. Jamison has outlined, there are one or two other aids in making an etiological diagnosis. Here the x-ray helps us considerably. As Dr. Jamison has said, pure aortic regurgitation rarely occurs in rheumatic heart disease. It is associated with mitral stenosis. Now, because of the transmitting of the Austin-Flint diastolic murmur from the base to the apex, there may be some doubt clinically as to whether the patient also has a mitral stenosis, and whether the diastolic murmur heard at the apex might not be due to a mitral stenosis. If a thrill be present, then we can be more certain of a diagnosis of mitral stenosis. However, by x-raying that patient, we can learn two facts of value. First, by putting the patient in a right lateral position before the fluoroscope, in the presence of mitral stenosis there will be an enlargement of the left auricle and the shadow of the left auricle will encroach upon what is normally a clear retrocardiac space. The enlargement of the left auricle will help to establish the diagnosis of mitral stenosis, and that in turn helps to establish the rheumatic etiological factor. The x-ray also helps in this respect; if the left auricle is not enlarged, we examine the aorta closely. While the aorta may be affected in rheumatic heart disease, yet the amount of involvement is only microscopic. Syphilitic aortic regurgitation is

usually secondary or at least extends downward from the process of an aortitis along the aortic wall. These patients will then very commonly reveal an increase in density of the aorta, oftentimes widening, sometimes even a small aneurysm, because a certain proportion of these cases of aortic regurgitation may not be due primarily to involvement of the aortic valves but to a stretching of the aortic ring, and we have a relative insufficiency of the aortic valve.

I am very glad to have Dr. Jamison take occasion to discuss the internal method of treatment of congestive heart failure. There is one point I do not quite agree with Dr. Jamison in treatment. Before the onset of congestive heart failure, I do believe that, before the prolonged preliminary treatment with iodides and mercury, which he suggests, small doses of salvarsan at long intervals do have a place, because in my experience these cases of syphilitic aortic regurgitation, unless they do get salvarsan, will progress. In other words, we can not stop the progress of the disease with iodides and mercury alone.

DR. JAMISON, in closing: I wish to thank Dr. Sullivan for his kind discussion. There are one or two factors which for the sake of brevity and emphasis I did not mention, that may of course cause reflex aortic regurgitation. The first of these is a healed bacterial endocarditis, for instance. Occasionally a man recovers from a gonorrheal endocarditis or a pneumococcic endocarditis, these two infections commonly occurring mainly in the aortic valves and deforming them. Those cases are so rare that I did not touch on them. I saw one in autopsy in John Musser's clinic a couple of weeks ago.

Again, there is a congenital aortic regurgitation which is very, very rare, cited only by Vaquez; an autopsy observation, however.

My remarks about the use of digitalis may have seemed to many of you rather revolutionary. I assure you, however, that they were based on years of observation. If any of you are interested, you may find my reasons for this statement in a paper that Dr. George Herman and I published a couple of years ago, how many were given big doses of digitalis and were alive a certain period afterwards, how many were given small doses of digitalis and were alive, how many no digitalis, how many that were given the arsenicals intravenously and were alive at such-and-such a period, etc. These observations were based on the only method we could find, admittedly a little faulty, but on the whole we based our present therapy only on observed facts.

Now, the Wassermann reaction is, of course, exceedingly suggestive when it is present. It is to be remembered, however, that a man may have mitral stenosis and aortic regurgitation with such a lesion that he acquired as a child, or acquired syphilis at some time later, and his Wassermann be positive and have little meaning. Again, a Wassermann in the face of syphilis, as we all know, is frequently negative. Other things taken together, the Wassermann is of some importance, but I do not believe, gentlemen, we should place too much faith in the Wassermann reaction in the diagnosis of tertiary syphilis in any form; least of all, in vascular syphilis.

Now, Dr. Sullivan brought out an exeellent point about the Austin-Flint murmur in mitral stenosis. Of course, that is highly technical. I was glad to hear him say that he thought that the thrill occurring at the apex pointed very much more strongly to mitral stenosis. That is my opinion and I have taught that actually to students for a good many years. On the whole, I think it is correct. As usual, however, it was being corrected by the junior medical students, as they know more medicine than any of the rest of us, that my attention was called to the fact that the Austin-Flint murmur was accompanied by a thrill and he pulled a book on me, as they always do. As a matter of fact, the authorities state that in their experience the Austin-Flint murmur is accompanied by a thrill in twenty per cent of cases. We have that under observation right now. I don't believe it for a minute, authority or no authority, and I agree entirely with Dr. Sullivan that the presence of a thrill points very strongly towards a true rheumatic stenosis and not towards the Austin-Flint murmur.

Now, the x-ray is, of course, of a great deal of importance in cardiac diagnosis. I didn't mean to imply that it is not. However, it is only of importance in differentiating certain very obscure cases. Again, you must remember that, if you run across a case when congestive heart failure has come about, when the heart has failed,—and that is the time that most of us see these patients,—they are scarcely in a position to be put before an x-ray, and much less to be manipulated very much in front of the x-ray. However, that is a point to be remembered. Now, the x-ray does help us enormously in the recognition of aortitis. We know that aortic regurgitation in syphilis results from the spread of the syphilitic aortitis downward in the first portion of that aorta. Many of us believe, however, that simple aortitis by itself, unaccompanied by a valvular lesion, is not of very great importance.

Now, one last point. We must distinguish when we come to the treatment of these cases between a syphilitic heart and a heart in syphilis. Now, we grant offhand that if a man has syphilis and his heart is not affected, particularly if he hasn't aortic regurgitation, of course, treat him for syphilis. If he has, however, syphilitic heart disease, then one must proceed very cautiously as to how to treat the patient for syphilis, and he has a very delicate balance there to determine whether it is more important that this man get treatment for syphilis of a very strenuous nature or if his heart is such that he can not stand the treatment. I ordered a man with aortic regurgitation treated with arsenicals just before I left. That is a particular case. I think on the whole, however, that in the presence of aortic regurgitation we only should proceed most carefully in the use of arsenicals.

There seems to have been arrangements made for the R. F. C. to take care of the medicine bill, but the doctors pay their own expenses without one penny compensation, so the end is near when we will have to lean on someone for help. Personally, I have delivered thirty babies since October 15, 1932, with $11.55 pay. What are we going to do? We can't let them die for want of medical attention, because they are human and demand that consideration.—J. C. G.

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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

OUR PRESIDENT

Dr. Leonce J. Kosminsky has crowded impressive achievement into his years as a practicing physician, which began in 1906 in Texarkana, Arkansas, his birth place and present home. Along with his extensive professional work, he has taught medicine and surgery, lectured, and given energetic service to numerous medical, civic and fraternal organizations. During the World War, he enlisted in the Medical Corps and went overseas as a captain on the surgical staff, continuing in that status until the war ended.

To all this activity, Dr. Kosminsky brought a thorough scholastic training, sound judgment, and a vital, good-humored personality. Thus equipped, the results of his efforts have been to win for him a warm regard in Arkansas and northwest Texas, and many professional honors.

Dr. Kosminsky's education began in the schools of Texarkana, where he was born in 1878. From there he went to the University of Arkansas, and then abroad to the University of Paris. Graduating from that institution, he next attended Northwestern University in Chicago, where he was graduated in pharmacy. For nine years thereafter, he engaged in the drug business in Texarkana. Then he entered the Medical Department of the University of Maryland, where he was graduated with the degree of Doctor of Medicine, in 1906. He served a year as an intern in the University Hospital in Baltimore, after which he returned to Texarkana to stay, except for the period during the World War. In his native city, in 1907, he became a member of the surgical staff of the St. Louis and Southwestern Railway for a year, and set up in private practice.

Dr. Kosminsky believes that a physician's education is never completed. Since leaving the universities, he has been, as he is today, an eager student of all that pertains to his profession. He has taken a number of post-graduate courses; one at the New York Post-Graduate School, another at the Mayo Clinic, and several from schools in Chicago.

In 1910, Dr. Kosminsky was a member of the U. S. Pharmacopoeia Revision Committee to revise the pharmacopoeia of the country. Later, he was professor of histology and bacteriology in the College of Physicians and Surgeons, Little Rock. He served as health officer of Texarkana four years, and of Miller

LEONCE J. KOSMINSKY, M. D., F. A. C. S.
Texarkana
President, Arkansas Medical Society, 1933-1934

County, of which Texarkana is the county seat, twelve years. He has served as president and secretary of the Miller County Medical Society.

Dr. Kosminsky believes firmly in the values organization holds for the fraternity. Hence, in addition to his membership in the county and State medical societies just mentioned, he is a member of the American Medical Association, the Southern Medical Association, the Tri-States Medical Association, and the American College of Physio-Therapy, vice-president of the Missouri Pacific Railway Surgical Association.

For twenty years, Dr. Kosminsky has been a surgeon of the Missouri Pacific Railway, and a local surgeon for the Texas and Pacific Railway Company. He has been a federal prison physician and examiner for the leading life insurance companies. Numerous civic, fraternal and other organizations have gained by Dr. Kosminsky's membership and have drawn in an official capacity on his abilities. He has been elevated to several high positions by the Elks. He is a thirty-second degree mason and a Shriner. The local Kiwanis Club made him vice-president and district trustee. He was commander of the Texarkana Post of the American Legion, and Department Commander of the State of Arkansas for 1928-1929. Recently, Dr. Kosminsky was made chairman of the Arkansas World's Fair Commission.

Dr. Kosminsky was married March 17, 1912, to Miss Nettie Friede, of St. Louis. In Texarkana, and for a distance around, the doctor and his wife are "home folks," friends, and fondly-regarded social figures. The people like Dr. Kosminsky as a man, trust him as a leader, and revere him as a physician.

Personal and News Items

Dr. and Mrs. R. B. Robins of Camden have returned from a motor trip to Chicago.

Dr. A. F. Gray, Little Rock, announces the removal of his office to the Urquhart Building.

Dr. Chas. S. Holt of Fort Smith has been re-appointed a member of the Board of Trustees of the Arkansas Tuberculosis Sanatorium at Booneville.

It is with much regret that we announce the death of Mrs. Izora E. Lemons, wife of Dr. James M. Lemons of Pine Bluff. Mrs. Lemons died June 27, 1933.

Dr. F. D. Smith of Blytheville was re-elected secretary-treasurer of the First Councilor District Medical Society at its meeting held in Piggott, May 2. The next meeting will be held in Paragould in October.

Dr. W. B. Grayson, State Health Officer, announces that Dr. A. B. Jemison, Jefferson County Health Officer, will join the staff of the State Health Department as State epidemiologist and malaria and dairy inspector.

In the Directory of the County Officers for 1933, the name of Dr. R. R. Kirkpatrick was reported as president of Miller County Medical Society. Dr. L. H. Lanier of Texarkana was elected president for 1933. Dr. Kirkpatrick was president in 1932.

Dr. H. H. Howze of Little Rock has been appointed director of the Jefferson County Health Unit, with offices in Pine Bluff. He succeeds Dr. A. B. Jemison and will carry out the present policies in regard to dairy regulation.

Dr. Loyd Thompson of Hot Springs has moved to San Diego, California. We regret loosing Dr. Thompson from our midst and wish him health and prosperity in his new location. Dr. Euclid Smith of Hot Springs has taken over the office and practice of Dr. Thompson.

Dr. John M. Smith, son of Dr. and Mrs. W. F. Smith, Little Rock, has joined the staff of the Missouri Pacific Hospital as resident surgeon. Dr. Smith was graduated from the University of Arkansas School of Medicine in 1932, and for the past year has served as an interne in the Scott and White Hospital, Temple, Texas.

The Seventh Councilor District of the Arkansas Medical Society held its first meeting June 6, in the Arlington Hotel, Hot Springs. About thirty physicians were in attendance. Dr. L. J. Kosminsky, President of the Arkansas Medical Society was the principal speaker.

Election of officers were as follows: President, Dr. Curtis W. Jones, Benton; vice-president, Dr. Geo. F. Holitik, Waldron; secretary-

treasurer, Dr. Chas. K. Townsend, Arkadelphia. Dr. George B. Fletcher is councilor for the district.

The Fort Smith Clinical Society met June 27, 1933. It is sponsored by the Staffs of St. Edward's Mercy, St. John's and Sparks Memorial Hospitals.

The program was as follows:

9:00 a. m. Surgical Clinics: Dr. A. F. Hoge and Dr. J. E. Stevenson.

10:00 a. m. Dry Clinics:

"Complications of Hypertention" by Dr. Jas. W. Amis.

"Heart and Kidney Diseases" by Dr. A. A. Blair.

"Anomalies of the Uterus" by Dr. Pierre Redman.

Surgical Table: Dr. H. Moulton, host.

"Diagnosis of Some Vaseular Diseases of the Extremities" by Dr. F. H. Krock.

"Diagnostic Hints on Intestinal Obstruction" by Dr. S. J. Wolfermann.

"Points in Technic of Office Gynecology" by Dr. W. G. Eberle.

Medical Table: Dr. Hugh Johnson, host.

"Otorhinological Hazards of Swimming" by Dr. E. C. Moulton.

"Pyelitis of Pregnancy" by Dr. C. B. Billingsley.

"Free Medicine" by Dr. C. H. Kennedy.

Afternoon Session:

"Uterine Hemorrhage and Its Treatment" by Dr. I. F. Jones, Fort Smith.

"A Plea for More Exaet Clinical Diagnosis of Gastro-Intestinal Diseases" by Dr. George E. Knappenberger, Kansas City, Mo.

A reorganization meeting of the State Medical Examining Board was held at the Hotel Marion, Little Rock, June 19, 1933. Dr. W. W. York of Ashdown was elected president, succeeding Dr. W. W. Verser of Harrisburg. Dr. W. T. Lowe of Pine Bluff was elected vice-president and Dr. A. S. Buchanan of Prescott, secretary-treasurer.

One physician from eaeh congressional district in the State is appointed to the board. Dr. L. T. Evans of Batesville is a member from the Second District. Dr. Will H. Moek of Prairie Grove is the member from the Seventh District.

HONOR ROLL

The following counties have a 100 per cent membership of their 1932 roster:

Cross, Dallas, Drew, Grant, Greene, Hempstead, Lafayette, Little River, Monroe, Nevada, Polk, Prairie, Seott, Searey and Sebastian.

This does not reflect on the other counties. Several of which have only one delinqueney, with probably two or three new members, or members who have been reinstated. Pulaski County alone having eleven new members. Let our aim this year be a 100 per cent of last year's membership.

County Societies

MISSISSIPPI COUNTY

(Reported by F. D. Smith, Sec.)

The Mississippi County Medical Society met at Blytheville, June 5, 1933. The following were present: W. J. Sheddan, Osceola; T. F. Hudson, Luxora; J. A. Luckett, Dell; P. L. Tipton, A. M. Washburn, I. R. Johnson, H. C. Sims, F. L. Husband and F. D. Smith of Blytheville. R. G. Henderson, Conley Sanford, Casa Collier and H. K. Turley, Memphis, Tennessee, were visitors.

The scientific program consisted of papers on:

"Jaundice" by Dr. Collier and "Skin Diseases" by Dr. Henderson.

Dr. Sheddan presented an interesting ease of Tularemia.

The next meeting will be held in September.

CRAIGHEAD-POINSETT COUNTY

(Reported by E. R. Barrett, Sec.)

The Craighead-Poinsett County Medical Society met in regular session on Thursday evening, June 15, at the Jonesboro Country Club. A very informal meal of sandwiches, fried squirrel and eold drinks was served.

The society was honored by the following visitors: Dr. Willis C. Campbell, R. C. Bunting, J. L. McGehee and Lyle Motley, all of Memphis. They came in the afternoon for a game of golf.

Dr. Campbell gave a short discussion of "Tennis Elbow." Dr. Bunting made a most interesting talk on "Polyneuritis," emphasizing the relationship of the condition to vitamin deficiencies. Dr. McGehee read a comprehensive paper on "Breast Tumors," discussing the operative technic and using excellent slides to illustrate the steps of radical removal of the breast for carcinoma.

There were twenty-four members present.

PROCEEDINGS

OF THE

FIFTY-EIGHTH ANNUAL SESSION

OF THE

ARKANSAS MEDICAL SOCIETY

Hot Springs, May 2, 3, 4, 1933

HOUSE OF DELEGATES

First Meeting

Tuesday Morning, May 2

The House of Delegates convened in the convention hall of the Arlington Hotel and was called to order at 9:30 a. m. by the President, Dr. Mock.

President Mock: We will omit the roll call because we have all the attendance cards in good form. We will now appoint the Credentials Committee which will be composed of Earle Hunt, W. B. Grayson and J. H. Fowler.

The Credentials Committee made its report as follows:

Dr. Hunt: Mr. Chairman, we are ready to report.

We have examined the credentials of the delegates so far registered and find their papers are in good form and correct.

On motion, the report was adopted and the committee discharged.

On motion, the minutes of the Fifty-seventh Annual Session, as published in the June, 1932, Journal, were adopted.

President Mock: I will appoint on the Reference Committee, F. O. Mahony, El Dorado; T. F. Kittrell, Texarkana; M. S. Dibrell, Van Buren; George B. Fletcher, Hot Springs; L. T. Evans, Batesville. Gentlemen, I want you to take under consideration all the proceedings of this meeting. You can accept or reject or make suggestions, according to your best judgment, on all matters pertaining to the proceedings of this meeting, to report the afternoon of the last day.

Third Vice-President Holt: Gentlemen, the next on the program is the President's address to the House of Delegates, and I am sure we are going to be entertained and educated in the next few minutes. Dr. Mock. (Applause.)

PRESIDENT'S ADDRESS TO HOUSE OF DELEGATES

House of Delegates and Members of the Arkansas Medical Society:

I wish to take this opportunity of expressing my gratitude and deep appreciation for the high honor you have conferred upon me. It marks the most important epoch in my professional career and will stand out upon the canvas of the past as a bright spot, and its friendships and associations will always be treasured in memories casket.

I wish to thank the various committees for their most faithful and efficient services, and for their splendid reports.

We are not unmindful of their important duties, and the valuable services they have rendered.

And to one whose accomplishments in behalf of his fellow practitioners are seldom excelled, and for the general efficiency he has demonstrated I wish to pay a fitting tribute and express our grateful appreciation to our secretary.

The question of what the future holds in store for medical practice looms large and forebcding in the minds of many of our profession. When we observe that individuals, committees, and commissions who have not had the experience or opportunity to understand or familiarize themselves with the requirements or conditions surrounding the practitioners of medicine, would attempt to socialize, revolutionize, and demoralize the practice of medicine, devising plans and efforts through agencies other than the individual physician.

We wonder what the result will be when the panic is ended and their is a general restoration and stabilization of business activities, will the physician be returned to a gainful occupation, will the practice of medi-

cine regain its normal proportions or will it emerge so distorted and misshapen and so infused with commercialism that it will not permit doctors to earn an adequate livelihood?

After studying various reports and comments on the cost of medical care we discover that the supposed high cost is not entailed through exorbitant fees received by physicians.

The commercial glamor of many of these schemes might appeal to some physicians and convince them that these methods offer greater financial security. This belief would overshadow their allegiance to organized medicine and the principals of ethics.

No plan has been submitted that shows that adequate medical care can be made available for the entire population with its tragic differences in location and ability to pay.

Health and life can be protected through the ministrations of a qualified humane medical profession left free of all restrictions that will interfere with the delivery of service in the most scientific and efficacious manner. The fact suggested that we have an over supply of doctors might be a factor which increases the economic distress. During this period of most acute financial depression the interest in mass practice has become widespread and intense but I believe it is reasonable to assume that if we should merge into an era of prosperity this feverish interest would abate.

We are a great brotherhood inspired by the same hopes and ambitions. We realize, in cooperation their is integrity and strength.

We are facing many serious problems resulting from changes in living and working conditions in this modern machine age, and any departure from the standard form of medical practice is of tremendous interest to all.

A public sufficiently educated and properly guided will look to us for protection. A disorganized medical profession would be so reduced in civic influence that under present conditions would become a danger to public welfare.

Medical organizations are builded upon the dictum that individualism must be safeguarded and not abused.

If such conditions should arise that it might be deemed necessary to accumulate a strong social and political force I would recommend an Arkansas Health League. Its purpose would be to unite in one group representatives of the medical, dental, nursing and pharmaceutical professions, hospitals and some lay organizations which have a common interest in furthering the welfare and scientific care of the sick, preventing disease and reducing as much as possible the unnecessary large and increasing expenditure of public funds for medical charity. At present, these groups are interested in questions of medical economics and legislation, but their efforts are scattered and largely ineffectual. No one group alone is probably large or powerful enough to possess any great influence, moreover any action taken by any one alone is likely to be greeted by accusations of selfishness which could be avoided if taken by an organization which includes all of these interests. No cults would be admitted.

The purpose of the league would be purely political, economic, and educational. Each profession has its own problems but they are similar, and if the political strength of all the groups can be given to the problems of one group, many of our most intricate problems could be solved and nothing but constructive legislation enacted.

Plans emanating from the medical profession and controlled by that body is bound to be more favorable to physician and patient than any proposal brought forward by outsiders and is certain to thwart any effort to disrupt the medical profession.

Our profession is in the midst of much turmoil and uncertainty. Perhaps we have never before faced such an uncharted future.

In the face of the unsettled conditions and economic strain we are going to see the return of the general practitioner, the family physician is coming into his own. With his kindly sympathy and the confidence of his patient he will go far toward preventing socialization and keeping people out of the hands of the unskilled and unscrupulous and away from pauperization.

Let us hold up to the younger men who have such wonderful general training the rich field of the family physician. It will offer for them better financial security and more rich experiences; it will be a bulwark against socialization and state medicine.

Membership in this society is an honor and lends to its members a professional position and public influence.

The individual practitioner of medicine contributes yearly a small sum as dues to his medical society which is an insurance against influences destructive to himself, his ideals, and to civic welfare.

Did the practice of medicine today not depend upon the influence our great society has exercised in the past it is not difficult to imagine what the present general practitioner would have to face.

Had certain legislation been enacted or had our self discipline not prevailed the practice of medicine and the public health problems would be chaos.

To guard against selfishness within his own ranks the true physician imposes upon himself and his colleagues restrictions the rigidity of which are a protection to his patient. The ethics of the medical profession imposes requirements which seek only this end.

Do you believe that a great portion of the millions of people who are wending their way through the world appreciate the physician at his full value? Do they care, understand or comprehend what sanitation, scientific research and preventive medicine have done to protect the lives and promote the health of our nation?

The great discoveries in medicine have come so rapidly during the last years, and the numerous life saving procedures have become so simplified and commonplace that they make little impression upon the millions of people that are benefited.

I believe physicians are being imposed upon and are rendering much service that is not appreciated.

I place full value upon the lofty purposes and high calling of the profession, the noble impulses and incentives that actuate and inspire us to answer the call of humanity oftimes without hope of reward and yet I believe the physician is entitled to fair and just compensation for his services. With sorrow and pity you can all recall instances where capable medical men had for years rendered faithful service to communities, and when the shadows of that last long twilight began to gather, and life and its lights had past, for the family their was left a tender sacred memory. A hoard of debts. A bundle of bad accounts, and no visible means of support.

An individual who enters the practice of medicine for purely financial gain fails to comprehend or appreciate the higher conceptions, and the lofty ideals of our profession.

Referred to the Reference Committee.

President Mock resumed the chair.

The following standing committee reports were read:

REPORT OF COMMITTEE ON SCIENTIFIC PROGRAM

R. J. Calcote, Chairman.

The greater part of our report has already been placed in your hands. We sincerely hope that when you have heard all of this program it will meet your hearty approval as we believe it will. I want to take this occasion to thank the other two members of the Committee, Dr. R. B. Robins of Camden and our able Secretary, Dr. Bathurst, for the very real help and splendid cooperation they rendered in the preparation of this program. We also want to thank all the members who have so generously contributed to it.

It is the sense of this committee, and we would like to so recommend, that the papers of our invited guests should not be open to general discussion, but all other papers, as has been our custom will be open for discussion. On as many as possible we have arranged for one or two members to open the discussion, after which we would like to hear free discussion, but, since our program is full, we believe all discussion should be brief, strictly to the point and only given when something further can be added to the subject or some point properly elucidated.

In closing, we would like to suggest that as soon as your program committee is appointed for the coming year, if you have any suggestions to offer, get in touch with the committee at once. Perhaps not all suggestions can be strictly followed, but they are a great help to the committee in determining the best program for the greatest number.

Respectfully,
R. J. CALCOTE, Chairman.

SCIENTIFIC EXHIBIT

Geo. B. Fletcher, Chairman.

To the House of Delegates of the Arkansas Medical Society:

We, the Committee on Scientific Exhibits, wish to submit the following report:

You will find the following Scientific Exhibits on the mezzanine floor:

(1) Diseases of the Chest as Shown on X-ray Films, by Drs. Rhinehart, Rhinehart and Gray, Little Rock.

(2) Exhibits of Endocrinopathies, by Dr. Henry H. Turner, Oklahoma City, Okla.

(3) Syphilis of the Skin, by Dr. D. W. Goldstein, Fort Smith.

(4) The Roentgen Ray in Obstetrics, by Dr. W. R. Brooksher, Fort Smith.

(5) Arrhenoblastoma of the Ovary, by Drs. J. M. Taylor, S. J. Wolfermann and Fred Krock, Fort Smith.

(6) Surgical Lesions of the Skin, by Holt-Krock Clinic, Fort Smith.

(7) A New Method of Attempt At Reduction and Immobilization of Compression Fractures of

Vertebral Bodies, by Dr. L. V. Parmley, Little Rock.

(8) Cancers of the Breast, by Dr. Dewell Gann, Jr., Little Rock.

(9) Exhibit of State Heart Committee—A. A. Blair, Chairman.

(10) Picture, Arkansas Medical Society, 1900, by Dr. S. W. Douglas, Eudora.

We would suggest that you give each of these exhibitors an opportunity to explain his exhibit.

Respectfully submitted,

GEO. B. FLETCHER, Chairman,
Hot Springs National Park.
W. E. GRAY, JR., Little Rock.
FRED KROCK, Fort Smith.

MEDICAL LEGISLATION

L. V. Parmley, Chairman.

Mr. President and Members of the House of Delegates of the Arkansas Medical Society:

The Committee on Medical Legislation met, in response to the call of the chairman, at breakfast this morning to consider this report and certain recommendations contained herein. Our Legal Advisor, Hon. Peter A. Deisch, was the guest of the committee. This was the second meeting of the committee this year.

The first meeting took place, in response to the call of the chairman, at 12:30 p. m., January 30, 1933, at the Hotel Lafayette, Little Rock. The object of this meeting was to consider several proposed bills as well as several which had already been introduced into the Legislature. Among the proposed bills considered was the Doctors, Nurses and Hospital Lien Bill which was approved for introduction. Another was the Narcotic and Somnifacient Drug Bill which was sponsored by several County Societies. The committee decided this was not the proper time for its introduction.

Among the bills already introduced, which came up for discussion, was S. B. No. 106, by Abington. This bill proposed to lower the requirements for entrance to the University of Arkansas, School of Medicine. The committee voted to vigorously oppose this bill on the grounds that if it were enacted and became a law, the State would, within a few years, be overrun with improperly trained doctors.

After perfecting a plan of attack upon the opponents of organized medicine during the remainder of the session the first meeting adjourned subject to the call of the chairman.

This committee is very happy to report the passage, and subsequent approval by the Governor, of S. B. No. 361, by Mitchell. It is now a law known as Act No. 130. This is the Doctors, Nurses and Hospital Lien Law as recommended by the Bureau of Legal Medicine and Legislation. Arkansas is the first State to adopt this bill as a law. It is estimated that, if properly used, this law will increase the income to the doctors of the State something like $200,000 annually, in collections, and the nurses and hospitals a like sum. This law was quoted verbatim in the April issue of the Journal and we strongly advise that every member of this society become passably familiar with its provisions.

There has been a rumor, going about, to the effect that the Arkansas Hospital Association and the Arkansas Medical Society did not agree upon this bill, and that the Hospital Association had a bill of its own introduced. We assure you such a rumor is groundless. It is true that a bill of this nature, especially favoring the hospitals, was introduced in the Senate by Abington, but the maneuver was for purposes of a test only and it worked beautifully. Just plain "politics" and nothing else. Mr. Lee C. Gammill, Superintendent of the Baptist State Hospital, is Chairman of the Legislative Committee of the Hospital Association and he co-operated with this committee at all times.

There were eighty-nine bills introduced in the two branches of the recent General Assembly, bearing, directly or indirectly, upon the medical profession of this State. The few which the profession sponsored or supported were passed and all of those which the profession opposed did not pass. The membership of both Houses seemed especially disposed to consider questions affecting Public Health and the practice of Medicine with open minds. Their sympathetic attitude is reflected in the voting upon these questions in the committee rooms as well as in open session.

This committee wishes especially to thank Lt. Gov. Lee Cazort and the Hon. H. K. Toney, Speaker of the House, for the courtesies extended its representatives upon the floors and in the committee rooms. Their attitude was one of sympathetic understanding throughout the session.

No bills were introduced by the cults in the recent session. The Basic Science Law was not attacked openly though if either of two certain bills had become a law it would have been repealed. Appropriations for Medical Boards and Institutions of the Public Health system were curtailed somewhat but no more so, proportionately, than other appropriations, to conform to the Governor's general economy program. On the whole we feel we came out with "flying colors" in this respect.

For the first time in many years the three medical elements of the State, namely: the Medical Society, the State Board of Health and the School of Medicine, cooperated splendidly to the end that all three institutions profited greatly. Undoubtedly that is as it should be.

Several times during the past year this committee has been petitioned by individual doctors, groups of doctors and even county societies, to use its influence for or against certain political appointments. The chairman has felt all along, that political appointments are of no concern to this committee, and if this committee, or any of its members, should mix in that phase of politics its usefulness would soon be destroyed. The chairman has stated upon several occasions that, in his opinion, the function of this committee should be confined to medical legislation and nothing else. At this morning's meeting the committee voted unanimously to sustain the views of the chairman in this respect.

We realize that our work was not so difficult this year as it has been in previous General Assembly years, and we feel it is because of the splendid cooperation of the whole society. We wish to especially thank the officers of the county societies whom we depended upon greatly to carry the message to your representatives in the Legislature. Your help was reflected in the voting upon the floor and in the committee rooms. Your committee is pardonably proud of its achievements during the past year, but it readily gives you credit for putting these successes over.

The committee as a whole and the chairman especially, wishes to heartily thank and extend

congratulations to the society's Legal Representative, Mr. Peter A. Deisch, for his loyal and splendid services in the Legislature during the last General Assembly. Much of the committee's work was done by him. Many of our successes are the result of his expert handling of the issues. It has been a great comfort to have him to rely upon when we found ourselves in tight places.

In conclusion, we desire to thank our President for giving us this opportunity to serve the Arkansas Medical Society during the past year in the capacity of the Committee on Medical Legistion.

Respectfully submitted,
VAL PARMLEY, Chairman.

Dr. Parmley: I wish to read a resolution.

WHEREAS, the Forty-ninth General Assembly in its recent session displays a commendable degree of statesmanship, patriotism and diligence not only in its endeavor to solve the many and perplexing problems of the State now pressing for general solution, but particularly so in its attitude toward the medical profession, and

WHEREAS, our profession was shown every consideration by the great majority of the members, and more especially by Senator Lawrence Mitchell, and by the Honorables John G. Rye, John W. Nance, Neill Bohlinger and Harve B. Thorn, as well as by the four members of our profession in the House of Representatives, Drs. Erskine Smith, Morgan Smith, A. L. Wilsford and Lorenzo D. Duncan. The members named are largely responsible for the enactment of the "Medical, Nursing and Hospital Lien Act," which is believed to be an act of justice to our profession.

THEREFORE, BE IT RESOLVED by the Arkansas Medical Society in annual session assembled, that our profound thanks be extended to the members of the Forty-ninth General Assembly of Arkansas, for the sympathy, consideration and patience which they extended to those who spoke for our profession, and their unfailing courtesy in the careful consideration of our proposals.

Dr. Parmley: I move the adoption of the resolution.

Being seconded, the resolution was adopted.

President Mock: We thank you for the report and thank you deeply for the work you have done.

Dr. Parmley: I include in my motion that a copy of this resolution be sent to those named in the resolution.

Adopted.

REPORT OF THE LEGAL ADVISER

Hon. Peter A. Deisch.

(Complete report will be found on page 7 in the June Journal.)

President Mock: I wish to introduce Dr. Barrow, president of the Louisiana State Medical Society, who will address us this evening on a most interesting subject. We wish to welcome you to our Society and State. It gives us great pleasure in having you present. (Applause.)

Dr. S. C. Barrow, of Shreveport: Mr. President and Gentlemen of the House of Delegates of the Arkansas Medical Society: I can assure you I will not consume your time at this moment. I simply came in as an interested spectator because of my interest in organized medicine and because of the interest I have in organized medicine in Louisiana. I was, therefore, interested to see what you were doing and how you did it. It gave me so much pleasure to hear your attorney appearing before you this morning and explaining to you the things that they have done for you in the Legislature. I am making my first visit to Arkansas and Hot Springs. For 27 years I have lived just below that imaginary line between Louisiana and Arkansas, and I have come to know the doctors of Arkansas practically as well as those of Louisiana. I can assure you that it gives me great pleasure to be over here today and to attempt to say a few words of interest to you this evening. I thank you. (Applause.)

REPORT OF COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

W. C. Garrison, Chairman.

Mr. President and Members of the House of Delegates of the Arkansas Medical Society:

Deflation has taxed the pride and curtailed the pleasures of all our people, but the Almighty strikes a balance in all things through the laws of compensation. In this instance our anguish seems to have been assuaged, at least in part, by a relatively low sick and death rate. Some satisfaction may also be enjoyed by that group advocating birth control.

With the exception of a mild epidemic of influenza, no serious epidemics have occurred since the last State meeting. The specialists, however, report an unusual incidence of sinus complications following the influenza outbreak.

It might be of professional interest to report that during the latter half of 1932 an unusually high incidence of cellulitis occurred, widely distributed over the State. The most trivial abrasion or prick often resulted most seriously.

The health education program was projected by the State health authorities, insofar as possible, in accordance with the resolution adopted by the House of Delegates at the last annual meeting, April 7, 1932, and later approved by the State Board of Health. While Section 9 of the resolution sets out that any local infractions of an agreed policy be submitted to the State Health Officer, only in two counties where disagreements occurred, was the State Health Officer notified and any opportunity offered to adjust the differences. On the contrary, in a number of counties the county medical society and several of the district medical societies adopted resolutions condemning the State Health Officer and asking for his removal. This occurred, in some instances,

in a short time after the adjournment of the last State meeting.

With very few exceptions the doctors who clamored the loudest and resorted to all possible means of political strategy and chicanery were the most serious offenders of Section 3 of the resolution above referred to, calling on members to cooperate in promoting the health program and to participate in the clinics and group meetings, also of Section 8 regarding corrective clinics and Section 10, pledging the support of the members to cooperate in the physical examination of school and pre-school children, etc.

A change in the executive direction of the State Health Department will take place June 13th of this year. It is hoped and recommended that at least a truce will be agreed upon in order to give the medical profession an opportunity to take stock and actually acquaint itself with the terms and import of the resolution adopted at the last State society meeting, as it is a sound, fair and equitable policy which will reflect credit on the State Health Department and the medical profession if effectively put into practice. It is further believed that it will contribute much to the solution of the cost of medical care and will allay the public mind as to the sincerity of the medical profession in advocating the prevention and eradication of disease.

It is recommended that the county societies uniformly follow the suggestions of the House of Delegates in its last meeting to appoint public relations committees and have them confer with the local and State Health personnel as to the interpretation and execution of prescribed policies.

It is further desired to call to the attention of the society that many of the physicians either mis-interpreted or wilfully ignored Section 1 of the resolution directing that conditions in each county be taken into accord and the plans and programs be modified to meet the needs of each county as determined by the physicians therein and the State Board of Health. In many instances local physicians have undertaken to direct the local health personnel and to publicly state that the doctors had taken over the direction of same and the State Board of Health had relinquished such authority. The resolution clearly states that there must be a determination reached jointly by the physicians and State Board of Health, but it would be inconceivable for a government to yield its prerogative or authority to any lay individual or group. It must be clearly understood that the State Board of Health is an official agency and the medical profession has no more authority to direct its affairs than any other governmental agency, but there should be a close relation of interest, and the effectiveness of the State Health Department will be enhanced or retarded in direct proportion to the friendly and active co-ordination of the State Health Department and medical profession.

While the radical wing of the medical profession has been so active in its antagonism and so boisterous in voicing its disapproval, it is desired to point out, and may it be said to the credit of the profession, that in over three-fourths of the counties of the State a large majority of the physicians therein signed a statement that they endorsed the program and policies of the State Board of Health in effect within these counties and that the conservative, far-seeing, unselfish members of the profession endorse the work that is being done and in the main state that it is conducive to the best interests of the people and of the medical profession.

Respectfully submitted,
C. W. GARRISON, Chairman.

Dr. D. E. White: I wish to file a minority report, if it is agreeable. We had three other doctors on this committee, Dr. Fowler, Dr. Verser and Dr. McNeil. I received a copy of this report that Dr. Garrison just read Saturday, the 29th of April. I didn't think, and some of the other members were of the same opinion, that we had time to consider this carefully and sign it and have it read. So, for that reason I didn't sign it and I don't think the other doctors signed it. I would like to read the minority report.

We, the Committee on Health and Public Instruction, having read the report as offered by Dr. C. W. Garrison, object to the tone of the report from the fourth paragraph on, in that it has a tendency to create a misunderstanding and friction between the medical profession and the public health officials.

It appears to us that the physicians who have signed the resolution complained of by Dr. Garrison must have had some cause for grievance as there were too many of them who signed the resolution.

There has always been a perfect cooperation between the different county medical societies and the State Health Officer until the last two or three years when it seems to us that organized medicine was unable to obtain a fair adjustment of differences between the health units and medical societies. This intolerable condition was supported by the State Health Officer and to our knowledge when we made complaints no correction was made by him.

It is to be hoped that the change in the executive direction in the State Health Department which is scheduled to take place June 13th of this year, will bring about a more harmonious understanding between organized medicine and the State Health Department and that they will start off together in perfect unity.

We understand that the State Board of Health is a board created by a statute and is not legally bound to organized medicine in any way. However, this board was made possible by medical men who were ardent supporters of organized medicine and had no intention of causing such a wide breach between the two organizations. It is our opinion that in all matters of any grave medical importance, then most assuredly the leaders in organized medicine should be consulted.

The radical wing spoken of by the Dr. Garrison is not so radical as you would imagine. It is merely voicing its disapproval of a seeming dictatorship apparently assumed by the State Health Officer and it must be remembered that all great reforms come from a judicial voicing of opinions from sincerely thought out questions. It is to be regretted that this resolution written by Dr. Garrison did not reach us in time to give it a more careful consideration. It reached me on April 29th with instructions from him to sign and return immediately so that he would receive it Monday, May 1st, which was one day before the opening date of the State meeting.

It is my opinion that the last six paragraphs of Dr. Garrison's report should be stricken out, inasmuch as they tend to create dissatisfaction, bad feelings, etc., and no good can come from them. Other matters of more importance should be substituted.

D. E. WHITE,
J. H. FOWLER,
W. W. VERSER.

Dr. D. E. White, May 1, 1933.
Hot Springs, Arkansas.

Dear Dr. White:

Due to the illness of my wife, it is impossible for me to be present at the State Medical meeting.

I never received Dr. Garrison's letter until yesterday (Sunday). Your letter arrived this morning. I agree with you in more ways than one about this report made out by Dr. Garrison.

In his report, beginning with his third paragraph, about all I can see that there is to it is that Dr. Garrison is defending his stand and condemning all members of the profession who have failed to agree with him.

In the fifth paragraph of your substitute resolution you state that the State Board of Health is a board created by a statute and is not legally bound to organized medicine.

Now, regardless of the legality, the State Board of Health, as I understand it, is the baby of the State Medical Society. Consequently, the society feels responsible for their child and it should be governed in the way that the members think best.

I am sure that you and the other members of the committee will take care of this resolution as it should be. Though I cannot be there, I will back you up in the stand you are taking.

Kindest personal regards.

Fraternally yours,
C. W. McNEIL, M. D.

ARKANSAS STATE BOARD OF HEALTH
Little Rock

April 28, 1933.

To the Committee Members:

I am enclosing herewith a report of the Committee on Health and Public Instruction which I have drafted and I am submitting for your approval or amendment. Will you kindly reply, with such comments as you have to make, at once in order that it may reach me not later than Monday morning, May 1st? If for any reason this does not reach you in time for you to get me your reply, I will hope to see you in Hot Springs before the report is submitted to the House of Delegates on Tuesday morning, May 2nd.

Very truly yours,
C. W. GARRISON, Chairman.

DR. W. W. VERSER, Harrisburg,
DR. CLYDE McNEIL, Rogers.
DR. J. H. FOWLER, Harrison,
DR. D. E. WHITE, El Dorado.

May 2, 1933, 2:00 P. M.

NOTE.—Having drawn up suggested resolution rather hastily and not wishing in any manner to intentionally misquote Dr. Garrison relative to his urging his committeemen to sign his resolution and return to him, I am attaching hereto a copy of his letter which I received along with the resolution as offered by him.

Respectfully,
D. E. WHITE.

President Mock: The reports will be referred to the Reference Committee.

SUGGESTED AMENDMENTS TO THE CONSTITUTION AND BY-LAWS OF THE ARKANSAS MEDICAL SOCIETY

(1) Constitution, Article VIII, Sec. 2, p. 4. To be changed to read as follows:

"The place for holding each annual session shall be decided by the House of Delegates. After conferring with the President and Secretary of the society, the time for holding each annual meeting shall be decided by the Committee on Arrangements of the component society of the county in which the meeting is to be held."

(This change is suggested because it corresponds with the practice that has been followed for a number of years.)

(2) By-Laws, Chapter 1, Sec. 3, p. 7. The first sentence to be changed to read as follows:

"Each member, each member chosen as a delegate, and each guest in attendance at an annual session of the society shall register in such manner as may be provided by the Secretary, giving his name, address, and the component society of which he is a member."

(This change is also made to correspond with present practices and to permit changes as may be necessary.)

(3) Chapter 1, Sec. 4, p. 8. Strike out the first word: "that." After "honorary member" in line 7 change and add "and the component society shall be exempt from payment of the annual assessment for his membership. An honorary member shall have the same privileges as other members."

(The society has no dues, but it does have assessments; this change is made to clarify this section. It also better defines the status of an honorary member, and will give component societies the right to honor active physicians by such membership.)

(4) Chapter IV, Sec. 8. Change to read: "It shall elect delegates and alternates to the House of Delegates," etc.

(5) Chapter V, Sec. 1, p. 12. Strike out the first sentence in this section and substitute:

"Immediately after adjournment of the first meeting of the House of Delegates at each annual session, the delegates from the component societies of each councilor district shall meet,, the councilor acting as chairman, and select one delegate from each district to form a Committee on Nominations. This committee shall consist of ten delegates, one from each councilor district. It shall meet and organize by selecting a chairman and secretary. It shall be . . ., etc."

(This change is suggested because this is the procedure that is followed in the selection of the nominating committee.)

(6) Same section, last two sentences, change "president" to "president-elect."

(7) Chapter V, Sec. 3. Change the last two words, "general session," to "annual session."

(This is a clarification of wording. General session is used to designate a general meeting of all members at an annual session, and not to indicate a meeting of the House of Delegates.)

(8) Chapter VI, Sec. 2, a new section:

"The president-elect shall be a member ex-officio of the Council and the House of Delegates

without the power of voting. It shall be his duty to assist the president in visiting the component county and the district societies, and to familiarize himself with, and prepare himself for, the performance of his duties when he shall have succeeded to the presidency of the society."

(I think this new section should be added, for as it now stands, the president-elect has no duties. Are there any others that you think of that should be given him?)

(9) Chapter VI. Change the numbering of the other sections in this chapter, Section 2 to 3, 3 to 4, 4 to 5, and 5 to 6.

(Made necessary by the addition of a new section.)

(10) Chapter VI, Sec. 3, p. 14. In lines 5 and 6, strike out "of the President counter . . ."

(11) Chapter VII, Sec. 3, p. 17. Begin this section with the following:

"The Council shall be the executive body of the House of Delegates and between annual sessions shall exercise the power conferred on the House of Delegates by the Constitution and By-Laws."

"This is already being done and this change gives authorization for it.)

(12) Chapter VIII, Sec. 1, p. 19. This whole chapter rewritten as follows:

"Sec. 1. The standing committees of this society shall be as follows:

1. A Committee on Scientific Work.
2. A Committee on Medical Legislation.
3. A Committee on Health and Public Instruction.
4. A Committee on Medical Education and Hospitals.
5. A Committee on Public Relations.
6. A Committee on Medical Economics.
7. A Committee on Scientific Exhibit.
8. A Committee on Arrangements.

"Unless otherwise provided, these committees shall be appointed by the President. Each committee shall consist of at least three members. A greater number may be appointed whenever circumstances require a larger committee. As far as practicable, appointments shall be made so that the term of office of a third of the members of each committee shall expire each year. The President and Secretary shall be ex-officio members of all committees.

"Sec. 2. The Committee on Scientific Work shall consist of three members of which the Secretary shall be one. Subject to the instructions of the House of Delegates, this committee shall determine the character and scope of the scientific proceedings for each annual session. It shall prepare a scientific program for each annual session, determining the order in which papers and discussions shall be presented. A preliminary program shall be published thirty days before each annual session.

"Sec. 3. The Committee on Medical Legislation shall consist of seven members. It shall represent the society in all legislative matters pertaining to public health and medical practice. It shall keep in touch with professional and public opinion and maintain active relations with the Bureau of Legal Medicine and Legislation of the American Medical Association. It shall, at all times, endeavor to shape and guide legislation with a view to securing the best results for the whole people. It shall strive to organize professional influence so as to promote the general good of the community in local, State, and national affairs and elections. During sessions of the General Assembly, it shall keep itself informed as to the bills that are introduced, and shall inform the members of the society through its Journal or by special bulletins, to the end that legislation inimical to the medical profession and the public shall be defeated, and legislation fostering the interests of public health and medical practice shall be enacted into law.

"Sec. 4. The Committee on Health and Public Instruction shall represent the society in those affairs having for their object the improvement in public and personal health, the prevention of epidemics, and the instruction of the people. It shall maintain close relations with the Board of Health, the State Health Officer, and the various health officials, assisting in the adoption of public health programs, the enforcement of sanitary laws, and the promulgation of other health activities of interest to the members of the society. As occasion demands or when thought advisable, it shall supervise the preparation of articles of timely interest for publication in the newspapers or for broadcasting over the radio for the instruction of the public.

"Sec. 5. The Committee on Medical Education and Hospitals shall serve this State for the Committee on Medical Education and Hospitals of the American Medical Association, and shall have referred to it all questions pertaining to hospitals and medical education. It shall maintain close relations with the officials and faculty of the University of Arkansas, School of Medicine rendering at all times such assistance as it can in maintaining that institution as a Class A medical school.

"Sec. 6. The Committee on Public Relations shall have referred to it all questions wherein the medical profession as represented by the society is called upon for advice, for participation in private or public affairs and projects not coming within the duties outined for the other committees. It shall be the publicity committee of the society and shall have charge of all publicity issued in the name of the society.

"Sec. 9. The Committee on Arrangements shall be appointed by the component society of the county in which the annual session is to be held. With the President and Secretary it shall select the time of the annual session. It shall provide suitable accommodations for the meeting places of the society and the House of Delegates, the scientific exhibit, the committees, and shall have general charge of all arrangements. Its chairman shall report an outine of the arrangements to the Secretary for publication in the program, and shall make additional announcements during the session as occasion may require.

(13) Chapter VIII, Sec. 10. The President shall have the power of appointing such other special committees as may be provided for by the House of Delegates. These committees shall be for the purpose of investigation and reporting scientific problems of interest to the physicians and public of the State.

(14) Chapter IX, Sec. 6. At the end of line 3, add "censoring"; at the end of the section, add "A County Society shall at all times be permitted to appeal or refer questions involving membership to the Council of the State Society for final determination.

"That the Council may be aided in rendering just decisions, it is necessary that the By-Laws of each component society provide in detail the routine to be followed in preferring charges and trying any member accused of and tried for any kind of unprofessional conduct."

(15) Chapter IX, Sec. 8, p. 24. Change as follows:

"When a member in good standing in a component county society moves to another county in this State, he shall be given a written certificate of these facts by the Secretary of his society, without cost, for transmission to the Secretary of his society, without cost, for transmission to the Secretary of the society in the county to which he moves. Pending his acceptance or rejection by the society in the county to which he removes such member shall be considered to be in good standing in the county society from which he was certified and in the State Society to the end of the period (respectively) for which his dues have been paid."

D. A. RHINEHART, Chairman,
E. F. ELLIS,
A. F. HOGE,
O. L. WILLIAMSON,
P. H. PHILLIPS.

Dr. Rhinehart: The Constitution and By-Laws provide that suggested amendments be published at least twice during the coming year in the Journal, and that they be held over until the next year before they can be finally acted upon. I move that this be done.

Dr. Holt: I second it.

Carried.

President Mock: I think there seems to be some misunderstanding about the matter of dues.

Dr. Rhinehart: Here is the report of the proceedings of the meeting last year. The resolution to reduce the dues to $3.00 was presented, and the Chair held as follows: "This resolution calls for a revision in the Constitution and By-Laws. It can't be acted on at this meeting, but must be drawn as a specific amendment to the By-Laws and will have to lay over until next year." The second resolution was presented then and the Chair held that "this also provides for a change in the Constitution and By-Laws, because the By-Laws provide that the Council shall act as an auditing committee to audit the books. If these resolutions are prepared as amendments, they may be presented at the last meeting of the House of Delegates to await action next year." They were not prepared in that form as amendments to the Constitution and were not presented at the last meeting of the House of Delegates.

President Mock: What is the will of the Society?

Dr. Snodgrass: I make a motion that we revert back to the old dues of $3.00. I think that will be sufficient to enable the Society to carry on its business. If it is not, I am willing to pay my $5.00. I know a great many people have complained about it and have quit the Society on that account. We don't want to accumulate anything. If we do, we will lose it. We want just enough to pay the expenses. If $3.00 will do it, let it be $3.00. I think that matter is part of the By-Laws and not a part of the Constitution, and can be changed at any time.

Dr. Gann: I second the motion.

Dr. Rhinehart: I am afraid Dr. Snodgrass is out of order, because that provides for an amendment to the Constitution and By-Laws and has to be presented and acted upon next year, and has to be published twice during the year.

Dr. Snodgrass: There is a difference between the Constitution and By-Laws. It isn't a part of the Constitution because when this Constitution was adopted we paid $3.00 and then raised the assessment as part of the By-Laws. It seems to me that under the rules of order we would have the same right to revert back to the other dues.

Secretary Bathurst: As a matter of information, we lacked about $600.00 of paying our expenses during the past year, due to a failure in securing advertising. The income from this source had been in excess of $4,000.00 for two or three years. The past year it just creeped over $3,000.00, and we are losing it at each issue. It is possible to make an amendment to the By-Laws by two-thirds of the delegates present, provided it is left open for a year and published twice in the Journal. So, it is not possible to make any change at this time.

Dr. Hunt: Wouldn't it be possible to cut down the budget?

President Mock: Has there been any falling off in our membership during the past year? What was the membership during the past year?

Secretary Bathurst: During the past year we had a total membership of 954, only 59 less than the previous year. We lost about 27 or 30 through deaths, not counting those who moved. We still have a cash balance of $6,500.00. We have had a complete audit made of the books of the secretary and treasurer by certified accountants, which can be

understood by the auditing committee, showing that our books balaneed and are in good condition. We might get along with $3.00 dues for probably one year, using part of this balance on hand, if you don't eare to have any reserve fund. But if you wish to eontinue the aetivities we have; pay the expenses of the attorney and invited guests and a number of other things, and taking eare partially of the Women's Auxiliary, we should have money to do so. Over six hundred have paid $5.00 this year.

President Mock: Our dues are as low as that of any other State Medieal Society.

Dr. Hunt: I move that the resolution reducing the dues from five to three dollars be tabled indefinitely.

President Moek: Have we a seeond? Lost without a seeond.

Dr. John: In the Third Distriet there is more complaint about dues than anything. That is the main eomplaint in every distriet Soeiety we have. I remember very distinetly when these dues were ehanged. They were changed from three to five right here in Hot Springs. The next year our dues were $5.00. If we raised them in one year why ean't we lower them in one year?

Seeretary Bathurst: I would like to make a suggestion that we suspend our rules for the present and reduee the dues to $3.00 and those that have paid five be refunded two dollars until next year.

Dr. Ballard: I seeond it.

Dr. Snodgrass: I don't think we should do that. The men who paid $5.00 wouldn't like to do that.

President Mock: All in favor of Dr. Bathurst's motion will say "Aye."

Dr. Rhinehart: That is absolutely unconstitutional and out of order. You ean't suspend the Constitution and By-Laws. If there is any demand for redueing the dues from five to three dollars, let it be presented as an amendment to the Constitution and lay over until next year and pass it in the regular order.

Dr. Buchanan: I would like to raise the point that the members of the House of Delegates all thought this amendment was being introduced as an amendment this year and was to be voted on at this time. Wasn't it published legally, to be voted on at this time?

Dr. Hunt: If it should be voted on now, I don't think the others should be refunded. I think that stands for this year.

Dr. Foltz: It is elearly out of order to do it this way, but it was our instructions from Sebastian County to vote for a reduetion of dues, under the impression that this had eome up last year and was to be voted on at this time. If that isn't the ease and that was not done, it's too bad. But in this way it ean't be done.

President Moek: The Chair will rule that this is out of order. It has got to eome up as a matter of revision of the Constitution and By-Laws. I don't believe the matter ean be aeted upon legally at this time.

Dr. Kosminsky: Would it be proper that a eommittee be appointed to prepare sueh a proposed change? Personally I am against a reduetion of the dues. I don't mean to be voted on at this meeting, but to prepare this in a proper and legal manner.

President Moek: All in favor of redueing the dues will stand. Just the delegates. This is not a matter of reeord at all. The eontrary, stand. It's just about a tie.

Dr. Ware: Take a vote of the members.

Dr. Foltz: Personally I am in favor of keeping the dues as they are, but we were instrueted to vote for a reduetion. Therefore, I am voting against my personal views, but earrying out my instruetions. Suppose that the report of the Committee on Constitution and By-Laws inelude in their report that suggestion and then it can be voted on next year.

President Mock: That is possible.

Dr. Gann: Where there is a tie, there is a way out. You remember this matter was brought up and passed without a provision to lay over the thing. I suggest we make it $4.00. The Southern Medical Assoeiation has $4.00, and I think our Soeiety should make it $4.00. Therefore, as a eompromise, I move that the dues be reduced to $4.00 and be voted on now. If we were wrong then, we are wrong now.

Dr. Foltz: That motion is out of order. The faet that we made a mistake then and got away with it doesn't justify us in making a mistake now.

Dr. Koobs: Isn't there a provision in the Constitution that, in ease of dispute on any question arising in the House of Delegates or through a eommittee report, that the matter

be referred to the General Session and a certain vote should carry?

Dr. Rhinehart: There is no such provision. There is a provision in the Constitution and By-Laws that any question may be referred to the membership and a referendum vote taken by mail. In reply to Dr. Foltz, if the Committee on Amendments to the Constitution and By-Laws is instructed by a vote of the House of Delegates to submit as part of its report an amendment providing for a reduction of dues, it may do so.

Dr. Gann: The House of Delegates have the authority to repeal a law that they made previously and found to be wrong. I feel there ought to be some way out of this because it causes dissension among the medical fraternity. A number of men here expected to vote on this; if there is a way to allow them to do it, I think it should be done.

Dr. Wolfermann: If that is true, and you can show from the record it was incorrectly and illegally done the other time, it naturally reverts to its legal aspect. I would like to hear from Mr. Deisch on it.

Dr. Snodgrass: Do you make any distinction between the Constitution and By-Laws? They can change the By-Laws at any time, according to my understanding, but not the Constitution. When this question was brought up here and we raised the dues, it was a matter of the By-Laws.

President Mock: It is my purpose to exercise justice and fairness. I don't want to be caught doing a thing which is irregular or wrong. I am going to solve this difficulty in this way: I am going to have my committee, composed of Dr. Rhinehart, Dr. Ellis, Dr. Hoge, Dr. Williamson and Dr. Phillips take this matter under advisement and investigate it to their entire satisfaction, so far as the legal phase is concerned and so far as our power to make any change is concerned, and report back to us at the final session. (Applause.)

CANCER CONTROL

Dewell Gann, Jr., Chairman.

Mr. President, Members of the House of Delegates:

Your Committee on Cancer Control respectfully submits the following report:

The committee has endeavored in every way possible to carry out your wishes of last year in connection with the five-year program of the American Society for the Control of Cancer. This year, particular attention has been given to cancer of the breast.

At the beginning of the year all county medical societies were offered a program, including lantern slides and practical demonstrations of transillumination of breast tumors as advocated by Cutler. Results have been gratifying and we urge those of you whose societies have not seen these slides write us for speakers or material. Give us as much advance notice as possible.

The cause of cancer remains unknown although we have had some encouragement from Washington in the past year. One out of every ten men and one out of every eight women after the age of forty die of cancer, but the heredity program is considered questionable and its transmission from one human to another has not been proven. It has increased sixty per cent in the last thirty years, ninety-two per cent in the last decade, and is now increasing at the rate of two and one-half per cent per annum in the registration area of the United States. It has advanced from the sixth to the second place in the leading causes of death, while tuberculosis has dropped from the second to the sixth place, the result of an educational program. The cancer age is from forty to fifty, but it is by no means rare in the very young. In its early recognition lies the hope of cure. It is insidious in its onset, painless in its incipiency, when curable if properly treated. (Arkansas' slogan.)

Let us forget the obsolete diagnostic textbook pictures since in its early recognition lies the hope of cure and lay more emphasis on the early signs of cancer.

Skin

Any sore on the skin that will not heal promptly, any sore that scabs and rescabs over an unusual period of time, or any wart, mole, or enlargement beneath the skin which suddenly begins to grow is potentially malignant. Bleeding is very significant when scab is removed. Three and seven-tenths per cent of all cancer deaths belong to this class.

Lip, Mouth, Tongue

Any sore on the lip, mouth, or tongue that will not heal readily is potentially malignant. The lip sore often scabs and rescabs and bleeds easily. The mouth and tongue sores often heal only to shortly recur. Three and two-tenths per cent of all cancer deaths belong to this class.

Breast

Any lump in the breast is potentially malignant. Cancer of the breast should be divided into two classes. The lump with symptoms and the lump without. After the age of thirty a lump demands removal and microscopical examination before removal of the patient from the operating table. If malignant, radical operation should follow immediately. A delay of ten days between removal of the tumor and radical operation reduces curability fifty per cent. Eight and one-half per cent of all cancer deaths belong to this class.

Uterus

Any uterus that bleeds between periods or after the menopause is potentially malignant. Any irregularity in the periods before the menopause may mean cancer. Any discharge with onset after the menopause suggests cancer. Any discharge before the menopause that becomes more profuse, more foul, or more irritating is suggestive of malignancy. Fourteen and one-half per cent of all cancer deaths belong to this class.

Stomach, Bowel, Rectum

Indigestion, vomiting of blood, passing of blood by rectum, pains in the abdomen, or persistent diarrhoea are all suggestive of cancer. The examination of the gastro-intestinal tract by means of roentgen rays is of inestimable value in determining lesions of these structures. Almost half of all cancer deaths are due to the liver, stomach, and bowel.

These symptoms should not only be known to the physician but to the individual as well.

Aside from these facts there is nothing new connected with this year's work except our efforts to establish a tumor clinic at St. Vincent's Infirmary in compliance with the program of the American College of Surgeons.

Surgery, radium and X-rays, or a combination of them remain the methods of choice in the treatment of malignant diseases. Dilaudid, calcium Gluconate or dicalcium phosphate may take the place of morphine for the relief of pain in incurable cases.

Respectfully,

DEWELL GANN, JR., Chairman,
D. W. GOLDSTEIN,
J. R. WILLIAMS,
A. G. HARRISON,
THOS. DOUGLASS.

HOSPITALS

W. A. Snodgrass, Chairman.

There has been nothing of importance brought before the Committee on Hospitals, during this year.

The Hospitals of our State have stood the depression remarkably well; none have been able to make any money, but all have carried on, and have taken care of the ills of the community in which they are located.

Respectfully,

WM. A. SNODGRASS, Chairman,
H. H. NIEHUSS,
T. F. KITTRELL,
W. R. BROOKSHER,
J. S. WILSON.

PUBLICITY

(Report of Conference on Contract Practice)

J. A. Foltz, Chairman.

This meeting was in many respects the most remarkable one I have ever attended. All were gathered at the Palmer House at Chicago about one hundred doctors, from every State in the Union and three or four from Canada. Composed as follows:

1. Presidents and other officers of the American Medical Association.
2. The members of the board of regents of the American Medical Association.
3. The chairman of Special Committees of the American Medical Association.
4. The Secretaries of all State Medical Societies.
5. The Presidents of a few State Medical Societies.
6. The Editors of all State Medical Journals.
7. Certain invited guests.

The sessions were all executive sessions held behind closed doors carefully guarded. None were admitted except upon presentation of credentials which were rigidly scrutinized and checked, unless the doctor was personally known and vouched for by the door keeper. Special agents brought information to the officers of the American Medical Association that most strenuous efforts were being made by certain industries to get certain doctors of Chicago to sit in at these meetings and that these doctors were acting in the capacity of spies and had been offered exorbitant fees to report the proceedings. It is needless to say however that none of these got in.

The meeting was given over entirely to the discussion of contract practice, its effect upon the medical profession as a whole, upon the individual practitioner and the attitude the A. M. A. should take in regard thereto. It shall be my effort to very briefly outline to you the results of these deliberations. This I will do largely with the language of those who spoke with authority.

Says Dr. William Allen Pusey:

1. Medicine is the trustee of society in the care of the sick and injured; its policies must always be governed by this fundamental fact.
2. The good of society must be the sole aim of its public policies and the good of the patient the first consideration in the relations between physician and patient.
3. Medicine's first responsibility must be to see that its services are available to all men.
4. The public interest demands the most competent medical profession possible. Medicine must be an attractive profession to compete successfully with other professions for the ablest young men.
5. In the sense that every calling from which a living must be gained is a business, medicine is a business; it must accept the competitive conditions of practical life but, as a profession of high ideals, it must seek to prevent selfish commercialism.
6. Experience has shown that the vast majority of disease conditions afflicting man can be most satisfactorily and economically cared for by a competent individual general practitioner.
7. The services of medicine include (a) the practice of medicine; (b) the promotion of preventive medicine and the public health, and (c) the fostering of research and the increase of knowledge.
8. Medicine's chief concern must be for the individual physician; the service rendered by individual physicians in the aggregate constitutes the great bulk of medical service. The quality of service which is given depends on the competency of the individual physicians who give it.
9. The medical profession asks for its practitioners freedom of opportunity to develop to the limit of their individual capacities.
10. It asks a career of independence under conditions of free and dignified competition.
11. It asks remuneration sufficient for reasonable comfort for the individual and for his family.
12. Medicine has a right to control its own affairs. Its history of capacity and altruism justifies this claim. Says Dr. Edward Follansbee who presented a very powerful and enthusiastically received paper on contract practice as the Octopus of Medicine:

"A little thought will convince one that should contract practice become the accepted method of furnishing medical care in those communities suitable to its development, other disastrous ef-

fects on the practice and the profession of medicine will occur.

Competition on an economic basis will gradually lower the income of the profession until worry over finances will take the place of recreation, study and scientific progress. His enthusiasm lost, the doctor will degenerate into a pill peddler. The idealism of the profession of medicine will fade away, for the character of the profession at large is but the sum of the characters of the individuals practicing it. The door will be closed to the beginner in medicine except as vacancies occur in the groups holding contracts when room may possibly be found at the bottom of the salary schedule. Advancement financial or professional will be slow, for competition compels restrictions on expenses, and vacancies ahead of the beginner will be few because the loss of opportunity for individual competition will bind each employee tightly to the job he holds. The profession of medicine will then lose its attractiveness to high grade men, and the octopus, contract practice, will have wrapped its strangling arms about medicine, the greatest of all the professions.

The effect on the people will be no less harmful. The individual physician cannot compete with the group clinic on an economic basis in contract practice. He is rapidly forced to the wall and displaced by the group clinic. Economic competition between groups forces volume of work ahead of quality of service. Volume destroys individual attention and compels mechanization. The personal relation existing between patient and physician disappears, the people become as animals, herded, routed and hurried through the channels of the clinic like animals in a stockyard.

Today we are building the profession of the future. We must keep it on a high plane that the high-minded, well qualified youth of the country will see in it opportunity and attractiveness as a life work. One by one the professions have been absorbed into industry and business, until today there is little opportunity for individual expression except in the medical professions. The youth now training and those contemplating training in the profession of medicine should not find the road blocked by any scheme of commercial practice inaugurated through sophisticated reasoning. Says Dr. R. G. Leland of Chicago:

In all of the various kinds of contract practice the patient and doctors both suffer in the long run, and the doctor is not infrequently exploited by the very concern for which he works. Example:

One corporation in Southwest Washington arranged with the hospital to have all medical and hospital treatment given its stipulated average of 130 men for the sum of $300 a year. The company then deducted regularly $1 per month or $1,500, leaving a net balance on the books of $1,260 for its enterprise. In other words it seems unnecessary to comment on the type of medical service represented by $300 for 130 men over the period of a year. This serves also as an example of the extent to which the profession may be exploited for profit.

It is not difficult to estimate the effect on the public of a system of medical care which offers employers an opportunity to manipulate their wage scale and contract medical service in such a way that the employee is led to believe he is receiving an additional wage as medical service in kind. Actually the employee pays for all the medical service he gets sometimes to the extent of contributing to a profit to the employer.

Physicians who thus become subservient to commercialism permit themselves to be exploited by lay organizers and lay promoters for the financial gain of lay stockholders. In some schemes as much as 42.5 per cent of the monthly rates paid for medical care under the contract scheme is deducted for overhead, taxes and profit, before any portion is allotted for physicians' fees.

It has been impossible for contract groups to secure and retain business without the use of advertising, solicitors, and in many cases, underbidding and misrepresentation. No physician who lends himself to such a system can avoid suffering a loss of self-respect nor can he prevent through such acts and associations, a general unfavorable reflection on the entire medical profession.

It was brought out at this meeting that one contract begets another in this community. Example:

One association was started in the southwest several years ago.

It charged admission fee of $2 for the individual and $3 for the family and monthly dues of $1 per individual and $2 per family. It secured as medical directors two members of the American Medical Association.

It described its medical service on its application for membership and certificate of membership in fairly clear definite terms, although there are some phrases in the application that might lead the applicant to believe he would receive something more than he would find described on his certificate of membership.

It exempts roentgenograms and anesthetics, makes a special charge for obstetrics and limits hospitalization.

The advertising matter is fairly conservative and its promises fall no further short of the legal agreement than the average difference between commercial advertising and the goods delivered.

So far as can be ascertained, the organization is financially responsible and maintains offices in several cities.

The success of the first brought in a competitor.

It set its membership fee for a family at $1 and monthly payments at 75 cents with 25 cents additional for each dependent.

Its advertising is less restrained. It attacks "the high cost of medical care" and promises that its "staff of able physicians provides for our members and their families complete medical care." It promises "confinement cases free," "periodical physical examinations" and a "25 per cent discount" on dental, optical, nursing, X-ray, hospital and surgical service, also medicine. No mention is made of the rates from which this discount will be given.

An examination of its organization shows it is operating on an old charter and is being promoted by a former promoter of chain drug stores who is also selling an antiseptic preparation on the side.

It has secured some physicians who have agreed to perform the legally required services free on the chance of getting something out of the extras to be paid for on the 25 per cent discount plan.

It has also been reported that arrangements have been made with a notorious irregular hospital for some of the services.

Even before this second scheme was well under way, one of the original promoters broke away and started a third on his own hook.

The membership dues of the latest scheme are to be "a penny a day," $3.65 a year, of which the agent selling the contract is to receive $1. Two physicians named as connected with this scheme are not found in the medical directory. No details of the medical service offered or supplied or of the payments to the physicians have been obtained.

In some of the western States this process of competition has been going on for several years. The annual report of the Insurance Commissioner of Oregon lists ten hospital associations with a combined income of $759,768 in 1931. Some of these are using all the forms of commercial advertising and solicitation employed in any field of high pressure selling. A recent display newspaper advertisement of one such association is headed "No More Doctor Bills" and promises to "Relieve your mind of all worry for a total cost of only 5 cents to 8 cents per day." For this sum you are promised "Full medical and surgical care, ambulance service, hospital maintenance, prescriptions, medicines and drugs, serums and inoculations, X-ray service, diathermy and ray treatments, sunlight treatments, services of specialists in medicine, eye, ear, nose and throat, optometric, and dental work, regular and thorough examinations."

The quantity of payment to the physician and the quality of the service to the patient under such a system may possibly be imagined. It may help this imagination to know that although Oregon already had one of the lowest fee schedules for compensation work in the United States, it has been twice reduced in recent months with the excuse that physicians were already performing the same work for the hospital associations at much lower rates than were required by the compensation fee schedule.

During this meeting I have been reliably informed that certain hospital associations, although nominally adhering to a fee schedule on which physicians are paid, actually have recently adopted a case payment method, thus further reducing the amounts paid for medical services. As a result, the hospital association will accumulate a surplus of funds, the distribution of which we can only conjecture. It is said that the reason for this change may be primarily to reduce hospitalization and the number of professional calls made per case. Thus it should be clear that the patients depending on such service are subjected to an unfair, unwarranted and dangerous interference with the medical care to which they are presumably entitled.

I have taken the liberty of quoting thus in detail in order to impress on you, the fact that this report did not contain or emphasize my individual opinion but that it reflected the opinion of our most brilliant leaders in medicine and surgery and the opinion of men high in the consuls of the American Medical Association, men with no "Axe to Grind" and with no selfish motives to promote but with the interests of the entire medical profession at heart. Men who, while they were in no sense of the word idealists yet who are striving to maintain the high ideals which the medical profession has ever held as sacred and which should they lose would mean ruin to the profession, to the individual doctor and more particularly and far more important to the people themselves.

All of the ninety men registered at this meeting coming from all parts of the United States and all parts of the dominion of Canada. These men who had been picked because of their special knowledge of the subject it held.

Never have I attended a meeting of so many doctors regardless of their location where there was less discussion, less tendency to argue, less difference of opinion. It was I may truthfully say the unanimous opinion of all of these men that the most dangerous enemy which not only the medical profession had to fight but which the individual doctor had to fight, was the octopus known as contract practice. It was the universal opinion that if for no other reason than because once started it was impossible to control, that one association would beget another, and that in turn another until in the end the profession would become simply heirlings to professional organizations or promoters working for what they could get and eating out of the hand of those who chose to employ them. While there were many opinions as to what was the best way to control or destroy this octopus there was no difference of opinion as to the ultimate servitude to which it would bring the profession. It is impossible in the short space I have, to bring anything except the high lights to you of this two-day session, I feel as though I should apologize for taking up as much of your time as I have but the question is tremendously important and each State and each county must fight this battle for itself, it must either win or lose, it must destroy or be destroyed.

ARRANGEMENTS

Grayson E. Tarkington, Chairman.

Dr. Tarkington: Mr. President and Gentlemen of the House of Delegates: All sessions will be held in this hall, exeept the memorial serviees, whieh will be held in the Presbyterian Chureh, two blocks north of the hotel. Tomorrow evening at nine o'eloek there will be the President's reeeption and ball in this room, whieh will be informal. The golf tournament will start this afternoon at two o'cloek. Full information ean be obtained at the desk or at the golf links. The Auxiliary meetings will be held downstairs in the ladies' parlor, starting at one-thirty this afternoon. The Committee on Seientifie Exhibit and also the commereial exhibitors requested me to ask you to please pay particular attention to their exhibits. Tomorrow at noon, in front of the hotel, we will likely have a pieture taken of all the members of the Soeiety. Dr. L. G. Martin requested me to announee that those interested in the hydrotherapy or pool treatment, he will be glad to take them to the bath house and give them a demonstration. The Levi Clinie and also the Publie Health Serviee Clinic will be open during the three days for visitors. St. Joseph's hospital, located north of the hotel, will be glad to have visitors at any time.

CHILD WELFARE

H. T. Smith, Chairman

We, your Committee on Child Welfare wish to make the following report:

Protection of motherhood should come first in all welfare work. Proper prenatal care reduces hazards to both mother and child. Proper postnatal care is equally essential. Every effort should be made to place the mother under supervision of a physician at an early date. With medical care at time of birth if possible.

Food

The food needs of growing children present the most important of all problems at the present time.

Certain specific inadequacies in diets which result in the deficiency diseases. In such times of economic distress children suffer more than any others.

It is the duty of the members of this Medical Society to aid relief organizations in every way possible. Be sure that the children have the essentials in foods to safeguard their growth and health.

Food money should be spent as follows:

Out of every dollar—

Milk	$ .25
Vegetables	.20
Cereals and bread	.20
Fats and sugars	.20
Other foods	.15

Each child under two years of age must have at least two teaspoonfuls of cod-liver oil daily—he should have 3 or 4. It is a known fact that fifty per cent of the nervousness in school children of the primary grades who are free from malnutrition or organic diseases, is due to hunger. Special feedings of milk between the first two meals of the day to offset the hunger pangs bring an improvement in only six per cent of the cases. At least half show no improvement. Special feedings of a food concentrate to build up the calcium metabolism as well as to offset the hunger bring an improvement in about fifteen per cent. All but fifteen per cent of the nervous children improve under this regime.

Calcium metabolism in elementary school children must be nurtured from day to day.

For the fifteen per cent that are not benefited by adequate diet, we suggest a Bureau of Mental Health, with clinics to study this unfortunate group.

Diphtheria prevention. This should be accomplished before the child reaches the age to attend school.

The following is a copy of a letter we are having the Public Health nurse to send to parents:

Mrs._____

According to our records your child, Johnie, is now over six months of age. As you know a child becomes increasingly likely to have diphtheria after six months of age.

Diphtheria is a preventable disease. Toxoid or toxin antitoxin will prevent it.

We urge you to take your child to your family physician and have him given this treatment.

Advantages of this Program

To the medical profession. It eliminates free clinics, increases the medical care to a large per cent of the population that are in good health.

Joint supervision by the medical profession and the health departments is in our opinion, the only satisfactory solution to the problem. We should charge a reasonable fee for this service.

Tuberculosis

The tuberculin test should be given as a routine procedure.

Every child who has a positive tuberculin test should have an X-ray examination.

The Von Pirquet test is probably the most satisfactory to us for children.

All positive cases should be reported to the Department of Health.

All of this work can and should be done by the family physicians.

Cripples

The Arkansas Crippled Children's Commission created by law to administer Act 356, to inquire into and report to the Governor and to the members of the Legislature upon the condition of crippled children throughout the State and to supervise and direct the rehabilitation and education and general welfare of such children in order to more adequately meet their needs; to cooperate with existing public and private agencies interested in the problem of these children, and to make necessary recommendations to the Legislature to insure an economical and practical program for their benefit; and at the same time while serving these children to also safe-guard the use of public funds. The Society for Crippled Children, with offices in Pine Bluff, up to the present time, have furnished all the money that has been made available for this work.

Arkansas Children's Home and Hospital interdenominational, non-political, located in Little Rock with the capacity of 76 beds, is being operated with an average number of patients for the past 12 months of 34.

The approximate amount of money required to operate this hospital at full capacity would be about $18,000. This hospital receives its support from State appropriation $3,200.50. Thirty-nine counties in this State appropriate from $50 to $600 per year to this institution, the balance of their income is from donations from clubs, lodges, churches and individuals.

We have numerous organizations initiated and sponsored chiefly by laymen seeking to solve the problems of child welfare. We have the White House Conference on Child Health and Protection established by President Hoover.

This conference has afforded a unique opportunity for co-operation and better understanding between the groups involved. It is our opinion that this has already born fruit and that a closer relationship between the workers will be accomplished.

H. T. SMITH, Chairman.

REPORT OF THE STATE BOARD OF MEDICAL EXAMINERS

S. J. Allbright, Secretary.

This board has had three meetings since the last report to the State Society. May 9-10, 1932, at which time thirty-eight candidates were examined all of whom presented satisfactory papers and were issued licenses. Thirty-seven applicants were graduates from the University of Arkansas School of Medicine, one was from Tulane University.

November 8, 1932, five candidates applied for license and were granted certificates by examination.

One a graduate of College of Physicians & Surgeons of Little Rock; one a graduate of University of Tennessee Medical School; one a graduate of College of Medical Evangelists; one a graduate of Trinity Medical College of Toronto, Canada; one a graduate of Meharry Medical College.

Nine applicants have been issued certificates by reciprocity since the last report to the society. These applicants came from New York, Missouri, Georgia, Illinois, Tennessee (3), Indiana, and Massachusetts.

Twenty-eight licentiates have been endorsed for license by reciprocity in other States going to South Dakota, Georgia, Kansas, Tennessee, Michigan, Iowa, New Jersey, Illinois, Nebraska (2), Indiana (2), Missouri (2), Ohio (2), California (2), Louisiana (2), Oklahoma (3), and Texas (5).

The Board has revoked the license of two physicians during the past year; one was revoked November, 1932, for "Chronic and persistent inebriety."

At a special meeting of the board January 10, 1933, the license of the other physician was revoked for advertising "Special ability to treat or cure chronic and incurable diseases" and for becoming an "Advertising and itinerant" doctor in violation of oath signed in his application. Notice of appeal to court was given but no appeal has been perfected to date.

The secretary is of the opinion that the law fixing the time for the meeting of the board on the second Tuesday in May should be changed. At the time this law became effective the medical colleges had finished their school terms by the second Tuesday in May; since that time the terms have been lengthened and now the graduates of other schools, in order to take the Arkansas examination the year in which they graduate, must leave their schools and make two trips to Little Rock, one to take the Basic Science Board examination the first Monday in May, and the other to take our board's examination the second Tuesday in May.

The Basic Science Board is serving a good purpose. No physician is being licensed by examination or reciprocity until he has the endorsement of that board.

I am of the opinion that the ruling, of the Basic Science Board, requiring all applicants for license by reciprocity to have five (5) years experience, could be changed to require one (1) year without doing violence to the purpose for which the board was created.

I would like to suggest that this society recommend to the Basic Science Board that such a change be made.

I would like, also, to call attention to the fact that the last issue of the Directory of Physicians, published this year by the American Medical Association listed fifty-six new physicians in Arkansas. Of this number twenty-two were physicians who were graduates of schools not recognized by the American Medical Association. THESE MEN WERE NOT LICENSED BY OUR BOARD.

When the work of the May examination is completed, my term of service on the State Medical Board of the Arkansas Medical Society will have been finished. I wish to take this opportunity of thanking the society for the honor it has conferred upon me, and to say that my term of service has been one of very great pleasure.

Respectfully,

SAM J. ALLBRIGHT, Secretary.

DISEASES OF THE HEART

A. A. Blair, Chairman.

Mr. President and Members of House of Delegates:

The Committee on Diseases of the Heart appointed last year under the able chairmanship of Doctor Sullivan, is attempting to further this work by increasing the interest and study in heart disease. Most of you remember the death rate figures in Arkansas over a ten-year period from 1920 to 1930, compiled by Doctor Sullivan and his committee. It is the intention of our committee to make available to this society incidence of heart disease as it affects our State, with resultant mortality rates, every five years, and this can only be done by insisting on every physician carefully reporting his causes of death, pointing out clearly whether death was due primarily to heart disease or whether it was a contributing factor.

The American Heart Association is deeply interested in the work carried on by each State, and an abundance of literature and information, giving pertinent facts in prevention and control of heart disease, is available to any physician desiring this.

That heart disease is the leading cause of death, and that the death rate is twice as great now as before 1910, is a well known fact. Inasmuch as 35-45 per cent of deaths result from infectious types of heart disease, namely, rheumatic and syphilitic, the main treatment is naturally prevention. We urge careful study of the heart during active treatment, and follow-up observation during intermission of these diseases, and we frankly believe that the death rate curve will be directed downward, but not until every physician whom this particular type of case chances to consult, for which we believe much can be done, keeps in mind the fatal heart complications and directs his treatment accordingly, will we hope to accomplish what the State Committee and American Heart Association hopes to do in lowering the death rate of a disease that is at the present increasing, and has been the leading cause since 1900.

Respectfully submitted,

A. A. BLAIR, Chairman,
A. G. SULLIVAN,
A. C. SHIPP,
N. F. WENY,
SAM J. ALLBRIGHT.

REPORT OF THE COUNCIL

Dewell Gann, Sr., Chairman.

On account of the depression, I did not feel justified in calling the councilors away from their business. Therefore, we had no mid-winter meeting, and we have no expenses. We have no report at this time.

REPORT OF THE DELEGATES TO THE A. M. A.

Secretary Bathurst: Dr. Rhinehart made the report this year. A copy of which was

printed in the Journal, November, 1932. If there is no objection, I would like for the printed report to be accepted.

On motion, carried.

REPORT OF THE SECRETARY AND TREASURER

To the Members of the House of Delegates of the Arkansas Medical Society:

Our membership at the close of the year 1932 totaled 956, which is only fifty-seven less than the previous year.

It pleases me to report that interest in medical societies continues to increase and that the majority of the lay public support organized medicine and our approved hospitals. However, we insist that our Councilor District Societies continue and intensify their efforts for the improvement of their own members to the end that every one of them may render the best service possible and that each in his everyday contacts can contribute helpful instruction to the public in whose interest medicine has ever sought to serve.

The following is a joint report of the Treasurer and Secretary as per audit by Chase and Gaunt, certified public accountants of Little Rock.

Our cash balance totals $6,570.62.

Respectfully submitted,

R. J. CALCOTE,
Treasurer.

WM. R. BATHURST,
Secretary.

AUDIT REPORT

April 20, 1933

ARKANSAS MEDICAL SOCIETY
Little Rock, Arkansas

Prepared by Chase & Gaunt, Certified Public Accountants, Little Rock, Ark.

INDEX

April 28, 1933.

Dr. William R. Bathurst, Secretary,
Arkansas Medical Society,
Little Rock, Arkansas.

Dear Sir:

At your direction we have made an audit of the books and records of the Arkansas Medical Society for the period April 7, 1932, to April 20, 1933, inclusive, and submit you herewith our report thereon in the following Exhibit and Schedules:

In Exhibit A we present in detail the cash received and disbursed for the period under review. All recorded receipts were traced into the various bank accounts and the disbursements were supported by cancelled checks and vouchers. We examined the cancelled checks for signature and endorsement and found them in order.

The United States Postal Savings Certificates were produced for our inspection. These certificates are carried in the name of R. J. Calcote. Due to the fact that the Postal Savings Law requires that the certificates be issued to individuals, and, that in the event of the death of the depositor they are payable to his estate, we suggest that these certificates be cashed and the funds deposited in the name of the society.

Cash on deposit with the various banks was verified by direct correspondence with the banks.

We have included in Exhibit A the other assets of the society, consisting of a note and impounded deposits. The note receivable was verified by inspection and the impounded deposits were verified by direct correspondence with the insolvent bank.

The amount shown as received for Journal advertising represents the recorded receipts as reflected by your records. No attempt was made to check advertising space available to ascertain if remittances for all space sold had been recorded.

The extent of our verification of the membership dues was to reconcile the total cash recorded with the total receipts issued during the period under review.

Our audit did not embrace a verification of the Gorgas Memorial Fund.

We found the records well kept and in good order, and wish to thank you for the courtesies extended our representative while on this engagement.

Respectfully submitted,

CHASE & GAUNT,
Certified Public Accountants.

EDITOR'S NOTE.—Since this report has been made the Government Postal Savings Certificates have been cashed, and deposited in the Treasurer's account.

EXHIBIT A

RECEIPTS AND DISBURSEMENTS SECRETARY AND TREASURER ARKANSAS MEDICAL SOCIETY

For the Period April 7, 1932 to April 20, 1933, Inclusive.

Balance on Hand April 7, 1932		$5,563.89
Receipts		
Dues	$3,796.55	
Journal Advertising	3,001.29	
Miscellaneous	33.00	
Student Loan:		
Principal	$120.00	
Interest	19.50	139.50
Dividends—Insolvent Bank	1,621.60	
Total Receipts		8,591.94
Total to be Accounted for		$14,155.83
Disbursements		
Honorarium—		
Secretary	$ 750.00	
Editor	750.00	
Salary—Bookkeeper and Stenographer	900.00	
Stationery, Printing and Postage (Schedule 1)	2,603.98	
Legal (Schedule 2)	1,425.10	
Annual Meeting Expense (Schedule 3)	695.70	
American Medical Association Meeting Expense	50.00	
Bond Premium	45.00	
Subscription—Hygeia	170.00	
Legislative Committee	177.55	

Miscellaneous	5.75	
Exchange	11.47	
Tax on Checks	.66	
Total Disbursements		7,585.21
Balance on Hand		$6,570.62

Represented by

U. S. Postal Savings Certificates	$1,500.00	
On Deposit—W. B. Worthen Co.—Secretary	1,014.39	
On Deposit—W. B. Worthen Co.—Journal	102.77	
On Deposit—W. B. Worthen Co.—Treasurer	3,074.17	
On Deposit—W. B. Worthen Co.—Treasurer	176.96	
On Deposit—Union Trust Co. Restricted—Secretary	259.81	
On Deposit—Union Trust Co. Restricted—Journal	406.14	
On Deposit—Union Trust Co. Unrestricted—Secretary	15.00	
On Deposit—Union Trust Co. Journal	21.38	
Total		$6,570.62

Other Assets

Note Receivable—Student Loan Fund	$ 240.00	

Impounded Deposits

Treasurer's Account	$4,672.57	
Secretary's Account	622.88	
Journal Account	1,731.66	7,027.11
Total Other Assets		$7,267.11

SCHEDULE 1

ANALYSIS OF STATIONERY, PRINTING AND POSTAGE

ARKANSAS MEDICAL SOCIETY

April 20, 1933

To Whom Payable	Date	Voucher No.	Amount
Central Printing Co.	4-16-32	394	$501.39
Mrs. Anna W. Phillips	5- 1-32	396	21.15
Mrs. Anna W. Phillips	6- 1-32	398	6.15
Central Printing Co.	6-18-32	399	365.50
Mrs. Anna W. Phillips	7- 1-32	400	2.00
Mrs. Anna W. Phillips	8- 1-32	403	6.00
Central Printing Co.	8-31-32	405	365.00
Mrs. Anna W. Phillips	9- 1-32	406	9.25
Mrs. Anna W. Phillips	10- 1-32	407	4.00
Central Printing Co.	10-10-32	408	162.54
Mrs. Anna W. Phillips	11- 1-32	409	4 75
Mrs. Anna W. Phillips	11-30-32	410	30.00
Central Printing Co.	11-30-32	412	180.00
Central Printing Co.	12-30-32	414	181.25
Mrs. Anna W. Phillips	1- 1-33	415	23.45
Mrs. Anna W. Phillips	2- 1-33	417	7.00
Central Printing Co.	2-17-33	425	298.05
Mrs. Anna W. Phillips	3- 1-33	426	9.50
Mrs. Anna W. Phillips	3-31-33	418	6.00
Central Printing Co.	4- 3-33	419	421.00
Total (To Exhibit A)			$2,603.98

SCHEDULE 2

ANALYSIS OF LEGAL EXPENSE

ARKANSAS MEDICAL SOCIETY

April 20, 1933

To Whom Payable	Date	Voucher No.	Amount
Peter A. Deisch	4-16-32	395	$390.60
Anna W. Phillips (Miscl.)	6- 1-32	398	34.50
Peter A. Deisch	1-19-33	416	250.00
Peter A. Deisch	2-17-33	424	250.00
Peter A. Deisch	3- 8-33	427	100.00
Peter A. Deisch	4-15-33	420	400.00
Total (To Exhibit A)			$1.425.10

SCHEDULE 3

ANALYSIS OF ANNUAL MEETING EXPENSE

ARKANSAS MEDICAL SOCIETY

April 20, 1933

To Whom Payable	Date	Voucher No.	Amount
Dr. C. Jamison	4-12-32	392	$ 57.70
Hotel Marion	4-12-32	393	82.00
Anna W. Phillips	5- 1-32	396	30.00
Noel Loeb	5-14-32	397	185.50
Norma Worthington	7- 1-32	400	35.00
Dr. W. H. Olmstead	7-14-32	401	50.00
Central Printing Co.	7-14-32	402	255.50
Total (To Exhibit A)			$695.70

The selection of the Nominating Committee being in order, the following were chosen:

PERSONNEL OF THE NOMINATING COMMITTEE

First Councilor District—W. W. Verser, Jonesboro.

Second Councilor District—S. J. Allbright, Searcy.

Third Councilor District—M. C. John, Stuttgart.

Fourth Councilor District—J. M. Lemons, Pine Bluff.

Fifth Councilor District—E. J. Munn, El Dorado.

Sixth Councilor District—A. S. Buchanan, Prescott.

Seventh Councilor District—George B. Fletcher, Hot Springs.

Eighth Councilor District—J. H. Sanderlin, Little Rock.

Ninth Councilor District—D. L. Owens, Harrison.

Tenth Councilor District—E. F. Ellis, Fayetteville.

On motion, the House of Delegates recessed.

HOUSE OF DELEGATES

Last Day.

Thursday, May 4, 1933

The House of Delegates was called to order by the President at 1:30 p. m., there being a quorum present according to the attendance cards.

The report of the Nominating Committee was the first order of business.

We, the Nominating Committee, wish to submit the following report:

For President-Elect—Wm. A. Snodgrass, Little Rock; F. O. Mahony, El Dorado; Chas. S. Holt, Fort Smith.

First Vice-President—Dewell Gann, Sr., Benton.

Second Vice-President—J. H. Fowler, Harrison.

Third Vice-President—John E. McGuire, Piggott.

Secretary—Wm. R. Bathurst, Little Rock.

Treasurer—R. J. Calcote, Little Rock.

Delegate to the A. M. A.—Wm. R. Bathurst, Little Rock.

Councilors:

First District—W. M. Majors, Paragould.

Third District—M. C. John, Stuttgart.

Fifth District—L. L. Purifoy, El Dorado.

Seventh District—Geo. B. Fletcher, Hot Springs.

Ninth District—D. L. Owens.

Thereupon the Chair appointed S. J. Allbright, D. L. Owens and Jos. Shuffield as tellers, and the House of Delegates proceeded to ballot upon the three names selected by the Nominating Committee, W. A. Snodgrass, F. O. Mahony and C. S. Holt, for president-elect.

The first ballot did not result in a selection.

Dr. Tarkington: I have been requested by Dr. Holt to withdraw his name.

Dr. Shuffield: I second it.

Carried by a rising vote.

Upon the second ballot, Dr. F. O. Mahony received a majority of all votes cast and he was by the President declared elected.

Dr. Rhinehart: I move that the Secretary be instructed to cast the unanimous vote of the House of Delegates for the others named.

On being seconded, carried.

Secretary: I consider it a privilege and pleasure to cast a ballot for the remaining officers except the Secretary.

President Mock: I take great pleasure in casting the ballot of the House of Delegates for the unanimous election of our Secretary, Dr. Wm. R. Bathurst.

REPORT OF THE COUNCIL

(Tuesday, May 2, 1933)

Council called to order at 12:30 p. m. Dewell Gann, Sr., Chairman, presiding.

Present: Councilors—Majors, Evans, John, Smith, Purifoy, Kolb, Gann, Sr., McCaskill, Owens and Wolfermann, President Mock, President-Elect Kosminsky, Secretary Bathurst, Attorney Deisch, and the following guests: Former Presidents, Ellis, Barlow, Wootton and Lemons.

The Council ratified the action of the Secretary in re-employing Mr. Deisch as attorney, and was authorized to pay his annual retainers fee, and compensation for extra services in January and February, 1933.

Drs. M. C. John, S. J. Wolfermann and H. T. Smith were appointed auditing committee.

Adjournment.

(Wednesday, May 3, 1933)

Council called to order at 12:30 p. m. by Chairman Gann.

Present: Councilors—Majors, Evans, John, Smith, Purifoy, Kolb, Gann, McCaskill, Owens and Wolfermann; President Mock, President-Elect Kosminsky, and Secretary Bathurst. Guests: Former Presidents—Vinsonhaler, Ellis, Lemons, Moulton and Caldwell.

The Auditing Committee reported that they had examined the books of the secretary and treasurer, as audited by Chase and Gaunt, Accountants, and found the books and finances to be in splendid condition.

The Council went on record as favoring the collection of only three dollars as dues for the calendar year, 1934.

Adjournment.

(Thursday, May 4, 1933)

Present: Councilors—Gann, Wolfermann, Kolb, Owens, Majors, Smith, Evans and Purifoy; President Mock, President-Elect Kosminsky and Secretary Bathurst. Guests: Former Presidents—Wootton, Lemons, Rhinehart and Ellis.

A gift of $100.00 was made to the Garland County-Hot Springs Medical Society to help defray the expense of the meeting.

The Secretary was allowed the usual honorarium.

The Secretary was authorized to pay the expenses of the invited guests and other expense incident to the meeting.

The legal advisor was retained. Compensation to be fixed by the President, Secretary and Attorney.

Approximately $150.00 was appropriated for HYGEIA.

The Committee on Cancer Control was allowed $50.00.

Expense of the Councilors, not including those incident to the annual meeting, were allowed.

Ten dollars was donated to the minister and ladies who provided the music, etc., for the Memorial Session.

The President, Secretary, Attorney and new Legislative Committee were instructed to take up and consider the question of the large increase of physicians of the Eclectic schools being licensed to practice in the State.

Dr. Wolfermann: I move the adoption of this report.

Carried.

President Mock: Any new business before the House of Delegates? If there is nothing, a motion to adjourn is in order.

On motion, the House of Delegates adjourned sine die.

GENERAL SESSION

First Day

The General Session was called to order at 8:00 p. m., May 2, 1933, by the President, Dr. Mock.

Invocation by Rev. Roy Hurst, Pastor of Central Baptist Church, Hot Springs.

Our Heavenly Father, we thank Thee for all of the blessings that Thou hast bestowed upon us in days past and the present day. We thank Thee for the opportunities that are ours for service. We pray Thy richest blessing and benediction upon this session and upon these ministers of healing in their deliberations here tonight and during their stay here. Wilt Thou give them wisdom, wilt Thou give them courage, as they go in and out before the people, dealing with all manner of diseases. Give them wisdom that they might minister aright. We ask it in His name and for His sake. Amen.

ADDRESS OF WELCOME

Hon. Leo P. McLaughlin
Mayor of Hot Springs

Mr. President, Ladies and Gentlemen: Way back in the dog days somebody started the custom of an address of welcome by the mayor of Hot Springs. It was one of those ancient customs which by me has been abandoned. An address of welcome to the people of this State or to the people of these United States is not necessary because of the fact that Hot Springs is your resort. Naturally, then, an address of welcome is not welcome.

I will do like Chauncey Depew did at a dinner, at which he was assigned a speech that he didn't like. He rose and said, "Mr. Toastmaster, Ladies and Gentlemen: I will now read the speech assigned to me this evening." He read his speech, and said, "I hope you will remember it because I shall not have occasion to return to it again this evening."

When I came here this evening I met several of my friends, doctors, from throughout the State. One of them said, "I have attended several conventions." I then referred them to Will Rogers' story to me, in which he said that he had been elected mayor of Hollywood. He said that he now belongs to the fast growing organization of ex-mayors, because he like many others has talked himself out of office. He said that he attended a convention held in Indianapolis of ex-mayors and, when he addressed them, he looked into their faces and realized that the American people still knew how to exercise the right of ballot. And so I don't want to be like Mr. Rogers or any of the other mayors. I want to talk just as little as possible and not talk myself out of office.

Another one of your friends said to me as I came up, "Isn't this McLaughlin?" I said, "Yes." He said, "That's an Irish name." I said, "Very much so," and I told him about a happening several years ago when I was city attorney of Hot Springs. An old gentleman came to the city hall one day looking for me, but he couldn't remember my name. One of the boys there said, "Can you describe him?" The old man said, "Well, he looks like a Jew, has got an Irish name and talks like a negro." He said, "McLaughlin you are looking for." "Yes, that's the man I am looking for."

Several years ago I was in about the same role I am this evening. I was invited to attend a banquet of the State public utilities. I was invited by Mr. C. J. Griffith, who was the boss of the utilities in Little Rock. I asked him at that time, just as I did Dr. Tarkington tonight, what I should say. He said, "Just use your own judgment." At that dinner, I told the story of two negroes who had gotten on a street car out at Pulaski Heights in Little Rock. After the car had proceeded towards the city and had gone about six blocks, one of them said, "Look here, Sam, this car is sure running smooth today, ain't it." "Yes, ut ought to. It's been off the track ever since we left Pulaski Heights." So, after the dinner Mr. Griffith told me the next time I was invited he would tell me exactly what to say. Speaking of speeches being assigned, it is a very dangerous thing because sometimes the preceding speaker will refer to some of the things that you expect to say, which will cause a change in your speech. Along that line, I want to tell you about two negroes who had been in the penitentiary up in Missouri. One got out much sooner than the other, and he turned out to be an evangelist. He got an old tent and started out preaching. Later, the other one got out and he ran on to this negro up in North Arkansas. He saw his tent and heard it was his partner who had been in jail and who turned out to be a preacher. So he went into the tent that evening and got right up in the front seat. Finally his partner came out, the fellow who had been in the penitentiary with him. He looked down and saw him on the front seat, adjusted his spectacles and fooled around with his Bible, and said, "Brethren and sisters, I am gwine to change my text tonight. My text is gwine to be, 'If

you see me and knoweth me, speaketh not and I will see thee later.' "

Talking about country doctors and about city doctors, colored doctors, etc., over in Eastern Arkansas there was an old fellow who married a young woman. She only married him for the land he possessed, and finally he died. She was doing the best she could to carry on and make out like she was sorry, but she wasn't. Finally they called in an old negro doctor. When he got there he walked all around the corpse and finally put his hand on the negro and he said, "Look here, this corpse is still hot." She jumped up and said, "Hot or cold, that negro is going out of here at four o'clock."

We want you people while in Hot Springs to enjoy yourselves, and we want you to bring your conventions here each year or as often as you meet. Hot Springs is the natural convention city for the State. It is one of the outstanding convention cities in this country. We have many people from foreign countries and from throughout this land to visit Hot Springs. It is the place to have your conventions. The people of Hot Springs are honored to have you here. We want you to have a good time while you are here and I want you to realize that Hot Springs is your Hot Springs. Do anything you want to do while here. Remember that the mayor's office is open. We have everything here but the 3.2. We don't have that yet but we are hopeful, however.

Now, that's about all I can say to you. I have extended to you the welcome of Hot Springs and, if you don't go ahead and do what you want to do to enjoy yourselves, it isn't my fault. I don't know what else I could do. I may be a little like the Jew hotel proprietor. A fellow came in and said, "What is the price of a room?" He said, "Two dollars." He took the room, and went upstairs and, after he was up there a little while, he came running down the stairs into the lobby, and said to this old Jew proprietor, "I can't sleep up there. There's two big rats fighting on the floor." This Jew said, "What do you want for two bucks? A bull fight?"

President Moek: Mr. Mayor, we thank you very much for your cordial welcome. We assure you that our stay in your city is going to be both pleasant and profitable. I next have the pleasure of introducing Dr. Howard P. Collings who will deliver the address in behalf of the Garland County Medical Society.

ADDRESS OF WELCOME ON BEHALF OF THE GARLAND COUNTY MEDICAL SOCIETY

Howard P. Collings, Hot Springs.

Hot Springs is glad to welcome the Arkansas Medical Society. The Garland County-Hot Springs Medical Society, which I represent is especially glad to welcome each of you.

We naturally feel a little pride in our location here and it isn't so far from the center of the State as to make it a hardship on anyone to reach here. Hence we hope that this meeting will be one of the largest in point of attendance that has ever been held in the State. I am sure it would be too were there fewer financial worries to contend with.

I know that you have arranged for a splendid scientific program and one that I am sure will be enjoyed by all.

These annual meetings are quite different now, in many ways from what they were years ago. The attendance is larger, as a rule, and growing each year as it should.

The scientific value of the papers has always been excellent but grows better each year and is keeping pace with the times.

However, to my mind about the most enjoyable part in these friendly get-together annual meetings is the opportunity they afford to renew personal friendships, to make new contacts and new friends.

The opportunity to match wits; to evaluate personalities and generally to be a good fellow. There is nothing finer than the friendly hand clasp of old pals. Its a joy to look into the other fellow's eyes and to realize and know the sympathetic feeling that there is among human beings who are in this same line of endeavor. Our trials, hardships and joys are so nearly the same that we understand each other. The trials and hardships we need only mention, but I think we might dwell for a moment on the joys that we occasionally have. By this I mean is the real joy and pleasure of feeling at times that some one in real physical trouble has been helped and perhaps saved by our earnest, strenuous and self-sacrificing efforts.

Now above I mentioned the fact that we local people have a little pride in our location here. I mean that. The hills about us are beautiful. They are not too big to climb, convenient and close by. Uncle Sam has seen fit to recognize the beauty of this setting and has carved foot trails, horse trails and automobile roads that reach almost every vantage point. To those of you who have not been up to the tower, who have not been on North Mountain or West Mountain, I will say that you have a real treat in store for you that most likely will be quite a surprise.

An oft suggested prescription here is to take an early morning stroll to the tower. In this case this prescription would be designed to add to the feelings of your physical well being; to produce pep and increased energy and to add brilliance to the discussions of your well planned program.

Prior to, during and after this early morning stroll suggested, don't fail to drink some of the hot mineral water that is conveniently at your service in the many fountains in the hotels and along Bath House Row.

To those members, and there should be many among you, who indulge now and then in that magnificent game we call golf; that game that can produce more joy and satisfaction on occasions; more chagrin, disgust, dissatisfaction and disaster on other occasions; that game that the fellow who goes out with the feeling that he can lick his weight in wildcats can here be humbled on courses that are as fine as can be found anywhere.

Again, in the name of the Garland County-Hot Springs Medical Society, we welcome you and trust that you may have a very pleasant and profitable meeting—and some golf.

RESPONSES TO THE ADDRESSES OF WELCOME ON BEHALF OF THE ARKANSAS MEDICAL SOCIETY

A. S. Buchanan, Prescott

Mr. Chairman, Ladies and Fellow Members of the Arkansas Medical Society: It is with a great deal of embarrassment on my part, as well as a great feeling of humility, but with a sense of appreciation, that I attempt to respond to this noble address of welcome on behalf of Hot Springs by our amiable Dr. Collings. I say that it is with a great deal of embarrassment on my part because of the inadequacy of language at my command to express our appreciation of this welcome. The reason for the humility is because, gentlemen, it has been thirty years since I heard my first response to a welcome address of the Arkansas Medical Society delivered by that lovable and our own dear member of organized medicine, Dr. Frank Vinsonhaler. At the time that I heard Dr. Vinsonhaler deliver this response to the address of welcome so delightfully, I was not a member of the medical society. I joined the society two years later. I have rounded out 28 years of membership in the Arkansas Medical Society and, ladies and gentlemen, I am happy to say to you tonight that I have missed only two meetings in that time. Counting my two meetings that I attended prior to my joining the society and subtracting the two meetings that I have missed since I became a member, I am batting 100 per cent. You all know Dr. Vinsonhaler's ability for responding to an address of welcome. He can do the job as few men can. I realize, gentlemen, that when Dr. Vinsonhaler so delightfully responded to that welcome address he was speaking to some of the greatest physicians and surgeons that Arkansas has ever produced, among whom was Dr. James A. Dibrell, Dr. E. H. Dibrell, Dr. Claiborne Watkins, Dr. Stark, Dr. Dorr, Dr. Cargile, Dr. Kirby, and Hot Springs' own distinguished and beloved member, Dr. E. H. Martin. I think, however, that one cannot be dutiful to any organization or to any institution or to any society unless he attempts to perform any task or duty which he is called upon to perform. Thus my reason for responding to this address.

The story that your Honorable Mayor McLaughlin told reminded me of a little story of something that occurred in my own land. I am a negro fisherman. Most of you gentlemen and part of the ladies probably don't realize what is meant by a negro fisherman; you dig the worms and put them on the hook and fish in that way. There's an old negro close to my town by the name of Sam Scott. Sam will dig all the worms you want for 25 cents. I made up my mind one bright Sunday afternoon to go out to Sam and get him to dig me some bait for the following day's fishing. So, while we were there and Sam was digging for the worms, there was an old dog that strolled along and sat down in the shade of a walnut tree. About the time that Sam was through, this old dog began to howl. I said, "Sam, there is something wrong with that dog." He said, "No, doctor, there is nothing wrong with the dog." We talked on a short time and finally the old dog gave the same howl. I said, "Sam, there is something wrong with that dog. I am going out to see what's the matter with him." He said, "Doctor, that dog is sitting on a thorn. Don't bother him. Just let him howl." For that reason, I am attempting to make this address.

Now, Garland County, we salute you. We are proud of you. We are proud of you for a good many reasons. We are proud of you because of the great and distinguished men that you have given to the medical profession of Arkansas. We are proud of you for many other reasons. We are happy to be your guests. We are glad that you are our host, Hot Springs, and Mayor McLaughlin, we honor your city. We almost envy you. We honor you for the position you occupy in the great cities of America today. We envy you for your wonderful city, for your mountain scenery. And to you, Dr. Collings, I wish to say that we love you. If you want to get any body of men's affections, treat them nice and feed them. You know it is said that the nearest way to a man's heart is through his stomach. Dr. Collings, we accept your hospitality. We know that we are going to have a good time. We accept your hospitality with a heart overflowing with appreciation. And, too, Dr. Collings, there are those here that expect to take the prescription of a morning stroll that you prescribed for us. We expect and intend to drink the water. We expect to use it internally, externally and, if these kind welcomes continue, eternally. But, Dr. Collings, I wish to say to you that there are those here who, if properly persuaded, will take any other beverages that might be offered provided you will assure us that it is not conducive to headaches.

We welcome your challenge to meet you on the golf links. We appreciate that invitation. You know that golf players are always willing and anxious to learn.

In the name of the Arkansas Medical Society, we wish to thank you for this profuse welcome and realize that we are going to have a good time while here, and that we are going to have a very instructive meeting. Mr. President, I thank you.

PRESIDENT'S ADDRESS

Will H. Mock, M. D., Prairie Grove

(The President's address will be found on the first page of reading matter in this issue.)

President Mock: I wish to introduce at this time from Shreveport, La., a fraternal delegate. He comes to us with greetings and I hope encouragement. I am going to introduce Dr. Herold, of Shreveport, La.

Dr. Herold: Mr. President, Members of the Arkansas Medical Society, Ladies and Gentlemen: I regret very much I wasn't here this morning when called upon. I was detained by an unfortunate occurrence in north-

west Louisiana yesterday afternoon, the details of which you are more or less familiar with. I was the head of a delegation of doctors and nurses who visited the scene of the tornado to render aid and returned home so late I didn't get to start until rather late this morning. However, it is a great pleasure to be with you this afternoon and this evening. When I was honored as fraternal delegate to the Arkansas Medical Society, I received it with much enthusiasm, because of my friendship for many of you. I have met many of you physicians through professional exchange, also through our Tri-State Medical Society of Arkansas, Louisiana and Texas. I am instructed by the Louisiana State Medical Society, Mr. President and ladies and gentlemen, to extend most cordial greetings and best wishes from Louisiana to the sister profession of Arkansas. We feel that in these distressing times there should be a co-ordination between the activities of the adjoining States. We need you and you need us. You have a great State. We are aware of the fact that you have produced great men, great statesmen, great men in medicine. We just heard our good friend Dr. Buchanan give the names of some of the illustrious men that you have produced. I come from a State of great and diversified industries; agriculture, in the way of cotton, corn, rice and sugar; minerals, in the way of oil, gas, sulphur and salt; timber of all kinds. We have great fish there. As you know, in Louisiana we specialize in king fish. The great State of Louisiana, therefore, which I have the honor to represent, greets you. We are a long State but we are not a long ways from Arkansas. We are right at your door. And Shreveport, especially, my home town, is almost in Arkansas. We are so close by that we feel we are almost a part of you. To the medical men I wish to make the announcement that the fourth annual fall clinics of the Shreveport Medical Association will be held in Shreveport this November. It will be somewhat different from previous clinics, in that six distinguished men from abroad will give clinics and lectures. The Louisiana State Medical Society meets in Shreveport next spring, and we hope not only will we have fraternal delegates from Arkansas, but that others will come with him. Once more, I thank you for this opportunity to talk to you, and for the honor to be with you, and I hope the opportunity will present itself again to call on you.

Dr. S. C. Barrow, of Shreveport, president of the Louisiana State Medical Society, read a paper on "Business in Medicine," which will appear later in the Journal.

A motion picture, "The Great Peril," was presented by Dewell Gann, Jr., Little Rock.

On motion, the General Session recessed until Thursday afternoon, after the last meeting of the House of Delegates.

GENERAL SESSION

Last Day

Thursday, May 4, 1933

The General Session was called to order by the President, Dr. Mock, immediately after the adjournment of the House of Delegates.

President Mock: Is there any unfinished business?

Secretary Bathurst: None on my desk.

REPORT OF THE REFERENCE COMMITTEE

F. O. Mahony, Chairman.

Mr. President and Members of the Arkansas Medical Society:

We, the Reference Committee have considered carefully all written reports submitted to us. We heartily commend the committees for their work. Some of these reports deserve more than mere formal recognition.

We wish to acknowledge the report of our delegates to the meeting of the American Medical Association, keeping us in touch with that body and bringing back their ideas to us.

We acknowledge and appreciate the completeness of the following reports. That of the Child Welfare Committee, H. T. Smith, Chairman; that of the Committee on Cancer Control, Dewell Gann, Jr., Chairman; that of the Committee on Hospitals, W. A. Snodgrass, Chairman; that of the Heart Committee, A. A. Blair, Chairman; the report of the State Board of Medical Examiners, Sam Allbright, Secretary, and the report of the Committee on Scientific Exhibits, Geo. B. Fletcher, Chairman.

We wish to commend J. A. Foltz, Chairman of the Publicity Committee for the very complete and instructive report on the Chicago meeting.

We wish to compliment R. J. Calcoate and his Scientific Program Committee upon the excellence of this year's program.

As usual L. V. Parmley presents us with a most excellent report which we realize could only have been made as the result of much hard and effective work on his part. In this connection we wish to thank everyone who aided in this work, especially Hon. Peter A. Deisch.

We have carefully considered the report of D. A. Rhinehart and the suggested amendments to the Constitution and By-Laws and recommend that these changes be made. We have gone carefully into both the majority and minority report of the Committee on Health and Public Instructions. We feel that every member is familiar with the situation, that no lengthy comment is

necessary and that we should pull together for harmony in the future, therefore we recommend the adoption of the first three paragraphs of the minority report and the adoption in full of the majority report which was presented as a substitute resolution.

We wish to commend the retiring President on his year of administration, thank him for the most excellent address given the House of Delegates and lastly we take this opportunity of thanking every member of the various committees on arrangements and those who participated in the success of this meeting in Hot Springs at this time.

F. O. MAHONY, Chairman,
T. F. KITRELL,
M. S. DIBRELL,
L. T. EVANS,
GEO. B. FLETCHER.

Dr. Mahony: I move the adoption of the report.

Carried.

President Mock: In view of the economic conditions, to me it is indeed gratifying to see the liberal attendance at this meeting. The fact that each committee has been present with a full and complete report speaks volumes. There has not been a gap in our program; it has been full and complete. This to my mind indicates the tendency of our profession. It to me is proof positive that the members are loyal to organized medicine. I wish now to take this opportunity to thank all of you for your hearty co-operation and support and for every kindness and courtesy that you have shown me. It has been a pleasure to serve you and I assure you that the associations and contacts and friendships of this meeting shall be treasured forever in my memory. (Applause.) We will now ask you to present the new president, Dr. Kosminsky.

(Dr. Kosminsky was escorted to the rostrum.)

Dr. Kosminsky: Mr. President, and gentlemen of the Arkansas Medical Society: I am not unmindful of the honor that you bestowed on me last year, nor am I unmindful of the task that is before me to come up to the standard set by my predecessors. No man should forget that, to be so honored by the members of his profession that he has known for the past 26 or 27 years, he must live up to all expectations. I sincerely hope and pray that a Supreme Power will help me to fulfill all of my ambitions and my expectations and those of yourselves.

I shall endeavor, and it is my hope to visit every district in the State during the coming year and as far as possible try to organize a county society in every county; and, where that is impossible, try to advocate the organization of two counties into one society; have the various county societies over the State to visit with one another during the year and try to preach to the doctors what the young man calls medical ethics. They believe, as they start out in the world, that we older men preach the ethics and expect them to practice it. After you have reached the ripe old age of 45 or 50, and have practiced several years, you begin to realize that these personal grievances and these hard things we might say against one another in our early days, are all false, and the community and the world at large are beginning strongly to lose respect for the professional man who constantly speaks against his fellow practitioner.

Gentlemen, at this crisis in the world, there is a great opportunity for the medical profession to try to understand one another, to help one another, and not have the people say, "Well, if Dr. Smith don't want to treat me, Dr. Brown will," and he travels from pillar to post, owing everybody and paying no one. It is that co-operation among us that would help each individual to make a living.

I want to try to encourage the meeting of district societies. I want every member of the Arkansas Medical Society to realize that I am not the President of the Arkansas Medical Society but your President and your servant for the next twelve months. I thank you. (Applause.)

President Mock: Dr. Kosminsky, it is my pleasure and privilege to present you this gavel, which is the insignia of the highest honor within the gift of the medical profession of the State of Arkansas. Accept it, with my congratulations. (Applause.)

Dr. Kosminsky: I thank you. Gentlemen, I will ask Dr. Holt and Dr. Snodgrass to escort the president-elect to the platform. Dr. Mahony.

(Dr. Snodgrass escorted Dr. F. O. Mahony to the platform.)

President Kosminsky: Any new business, gentlemen? Any doctor wish to present any new business? If not we will proceed to fill the vacancies on the State Board of Medical Examiners. According to the law, the Society selects the names of three members from the various districts and those three are to be presented to the Governor, from which he will choose one member to fill the vacancy. Dr. Fletcher will read the names.

Second Congressional District—T. G. Porter, L. T. Evans, Monroe Gray.

Third Congressional District—W. H. Mock, D. L. Owens, J. J. Morrow.

Fourth Congressional District—W. T. Lowe, John M. Proctor, C. W. Dixon.

Seventh Congressional District—L. L. Purifoy, A. S. Buchanan, J. J. Baker.

Dr. Snodgrass: I move that they be accepted.

Carried.

President Kosminsky: Invitations for the next meeting place are now in order.

Dr. Snodgrass: Little Rock would like to have the next meeting, if it is agreeable. We are always glad to entertain you and we are amply able to do so. I have no special thing to offer. You have met there before, and we will be glad to have you meet with us next year.

Dr. Munn: El Dorado would like to extend an invitation for the next meeting of the Arkansas Medical Society. I believe that you have met there two times before, once a number of years ago and just a few years ago, in 1927. We are asking for the honor to entertain you.

Dr. Tarkington: I see no reason in the world why Hot Springs should not be made the permanent meeting place of the Arkansas Medical Society. I would like to offer that as a motion.

Seconded.

Dr. Kosminsky: Dr. Tarkington, that is out of order.

If you wish to extend an invitation to meet here next year, we will consider that as a motion.

On the first ballot, Little Rock was selected as the meeting place for next year.

President Kosminsky: Your new State Health Officer, Dr. Grayson, is not here but I want to say that I have had a good long talk with him, and he assures me that over the entire State during his administration there will be a hearty cooperation between the Arkansas Medical Society and the Arkansas State Board of Health. (Applause.) Is there any further business? If not, I will now declare the Fifty-eighth Annual Session of the Arkansas Medical Society adjourned.

MEMORIAL SESSION

First Presbyterian Church.

Wednesday, May 3, 1933—8:30 to 9:30 A. M.

The Memorial Session was called to order by Dr. Mock, the President.

Invocation by Rev. Marion Boggs, Pastor, Hot Springs.

Almighty God, our Father, it is by Thy Spirit we are created, by Thy Providence we are governed, by Thy Grace we are saved. We would now bow our heads in reverence before Thee. We humbly pray Thee to keep us reminded that it is in Thy Hands to give life and in Thy Hands to take it again to Thee. We pray Thee, as we gather here to commemorate the lives of those who have gone on during this year, that Thou would grant to us Thy Grace of Spirit. Help us to have hearts of gratitude for the good work they have done. Help us to remember that we may keep them alive in our thoughts. Bless those who shall speak and grant in all things that we may imitate the good deeds of those who have gone. Now, our Father, help us in this world to have a consciousness of work well done and, in the world to come, eternal life. We ask it in the Redeemer's Name and for His sake. Amen.

Music.

DECEASED MEMBERS

Charles Travis Drennen, Hot Springs, died April 26, 1932.

Edward Ralph Cotham, Monticello, died April 30, 1932.

Jesse B. Munn, Vilonia, died May 5, 1932.

James Franklin Crump, Pine Bluff, died May 6, 1932.

Thaddeus E. Cothern, Jonesboro, died May 17, 1932.

Henry Harrison Atkinson, Fordyce, died June 6, 1932.

Everett L. Sullivan, Poughkeepsie, died June 11, 1932.

Isaac N. Freeman, Hot Springs, died June 20, 1932.

George W. Scruggs, Hunmoke, died June 21, 1932.

Noble Robert Townsend, Arkadelphia, died June 24, 1932.

David Crockett Walt, Little Rock, died July 22, 1932.

George W. Dickens, Leslie, died August 19, 1932.

Robert Newton Manley, Clarksville, died August 27, 1932.

Gilbert A. Buchanan, Prescott, died September 12, 1932.

Luther J. Luck, Hope, died September 15, 1932.

George W. Murphy, Strong, died September 16, 1932.

John Lester Sims, Harrison, died October 23, 1932.

Robert Blair Corney, Little Rock, died October 28, 1932.

Gustavus Albert Warren, Black Rock, died December 26, 1932.

James Horace Lenow, Little Rock, died December 30, 1932.

Claiborne Jackson March, Fordyce, died January 11, 1933.

John Felix Wilson, Dalark, died January 15, 1933.

Elbert Hays Wilkes, Little Rock, died January 25, 1932.

Robinson C. Dorr, Batesville, died January 29, 1933.

James H. Lindsay, Bentonville, died February 2, 1933.

William L. Hartsell, Warren, died February 4, 1933.

Alphonso Isom, Dumas, died April 24, 1933.

President Mock: I wish to introduce the dean of the Arkansas School of Medicine and the chairman of the Committee on Necrology, Dr. Frank Vinsonhaler, of Little Rock.

Dr. Vinsonhaler: Mr. President, Ladies and Gentlemen: Forty years ago I attended my first meeting as a member of the Arkansas Medical Society. The meeting was held at Batesville, and under the presidency of Dr. J. T. Jelks of Hot Springs. I dare say if there is a person in the sound of my voice who was present at that meeting. The older generation that constituted the Arkansas Medical Society at that time has passed away; none of them are here now. They silently, as the years have gone by, have yielded to that invisible Spirit of Time. We meet faces we have known and loved in years gone by and then we see them no more.

I speak now particularly of the forgotten man. That phrase has become popular recently. The forgotten man. I speak of those who, in the line of duty, have passed away without wearing the crown of glory, the forgotten man who does the work of life, the voiceless man who goes unrewarded to his tomb. That is the man that I shall speak of particularly today.

In the list of those who have passed away in the past year are five ex-presidents of the Arkansas Medical Society. I believe the dead number about twenty-five, perhaps more than that. I think I knew Charles Travis Drennen of Hot Springs for 40 years. He was one of the presidents of the Arkansas Medical Society. I knew Dr. Drennen when he came to Arkansas as a young man and knew him all his professional life until his death. I remember him, as we all do, with affection and esteem. His influence and his activities for the betterment of medicine in Arkansas will never be forgotten. In the city of Hot Springs his influence was felt in medicine. He did civic work often at great sacrifice. Dr. Drennen will not be forgotten. He will be remembered as a man who stood for the highest ideals in medicine.

Edward Ralph Cotham, of Monticello. Jesse B. Munn, Vilonia. James Franklin Crump, Pine Bluff. Thaddeus E. Cothern, of Jonesboro, one of the ex-presidents of the Arkansas Medical Society. He presided over the meeting at Fort Smith two years ago. He seemed then to be robust and in the best of health. Dr. Cothern was a man who left his impress upon medicine in the State of Arkansas. One of those robust, aggressive personalities that climb high in the practice of medicine.

Atkinson, Sullivan, Freeman, Scruggs, Townsend, Walt, Dickens, Manley, Buchanan of Prescott, one of the boys that I helped to educate. One of the young men that I knew and have known always, taken in the prime of life. Some one said that perhaps that is the best way to go.

Warren, I think, was present at Batesville. At least, I have known him for forty years. A strong character, interested not only in the practice of medicine but in the highest ideals of citizenship. He served the Masonic fraternity for one year as Grand Master. Dr. Warren will be much missed.

Lenow, one of the patriarchs of this society, the last connecting link, at least in the audience as I see it here before me today, between the society as it exists today and the society when it was born. Dr. Lenow was one of the men that helped to organize the Arkansas Medical Society 58 years ago, and served as dean of the school of medicine of the University of Arkansas. Dr. Lenow was a practitioner of the old type. He did his part as a soldier. He was under military age, but still was a soldier in Gen. Forrest's command

during the Civil War. He was a man of strong friendships and his ideals were those of the people at the time he was born and the associations that he knew as a young man. Dr. Lenow will not be forgotten.

March. Wilkes. I knew Dr. Wilkes for years. He was the type of practitioner who asked for nothing but gave all. He was never honored by any of the State or local societies with any official position. He didn't wear the crown of glory. He was one of the voiceless men. I went to Dr. Wilkes' funeral services conducted at the Presbyterian Church in Little Rock and, although I went ten minutes before the opening of the services, there was not a seat to be had below the gallery of the church. The balconies were filled. It seemed to me that every one was there. I had no conception of what Dr. Wilkes meant to the community. I had known him for years, and yet I did not know the affection and esteem in which he was held by the people of Little Rock. It was a surprise to me when I saw the great group of people there, drawn from every walk of life, who came merely to pay their tribute of love to the memory of Dr. Wilkes. And I thought to myself that I would rather have a testimonial of that kind than any glory that any medical society or any civic organization could pay to me. I would rather have people think of me in that way and love me than have all of the letters that were ever put after any man's name. That is a tribute of genuine love. In the atmosphere of that congregation, there seemed to be a feeling that the man had given unselfishly to the people that which they asked of him, that he had given his all. There was a feeling that the people came there because they loved him, and it seems to me there could be no greater tribute paid to any man. The whole place seemed filled with love and appreciation of one that had passed away.

Dorr, a man that will be missed, a man unafraid, a man beloved, revered and respected, a man that will long live in the hearts of those he left behind.

James H. Lindsay, of Bentonville, William L. Heartsell, of Warren, Isom and John Wilson, last but not least, the type of country practitioner who served the people of his community. He was a man that will be much missed.

Bryce said that we are a nation of idealists, that that is the strongest element that there is in the American character. What ideal is more wonderful than the man who in the country community serves that community with all there is in him.

I heard a man not long ago deliver a lecture. He was a professor of literature in Columbia University. He made one astonishing statement, to the effect that no man was fit to live until he was 40 years old, that man didn't really get any sense until he reached that age. And he made another astonishing statement, that the practice of medicine made the greatest demands upon the intellect and upon the heart and upon the character of any man engaged in it; that it made greater demands than any other vocation that he could think of, and he said, "Really you doctors ought not to be allowed to practice until you get to be 40 years of age." I think that the country practitioner, the man who serves his community to the full of his resourcefulness and unselfishly is without money and without price.

Some one has said that life after all is just an interlude between two eternities, and by the time we learn to appreciate it we are loath to let it go.

I remember Thorvaldsen said, when he finished his statue of Christ which was a masterpiece, that he felt in his heart that he had lived too long, that he had fallen short of his ideal, that he had failed in the creation of the things that he most wished to succeed in, and from that time he knew that life meant no further advancement for him.

It is said that when the committee of safety came to take Lavoisier to prison and afterwards to the guillotine, so engrossed was he in the work he was engaged in that he said, "Just wait until I finish this experiment before death shall claim me." How often we hear that remark. How often, when life's three score and ten years are passed, we hear of those clinging to life. And how often the great purpose of life is still unfinished.

I think one of the most beautiful pictures of the end of life is told in the Life of Osler by Cushing in his last illness. There was a man who had contributed much, who had lived much, who had known every element of success in life and yet he knew that he was to leave it. And when the attending physician, to encourage him, told him that he thought he was better, he turned to the nurse and said, "When an old man of 70 gets pneumonia, you and I know better." He said, "I

have had a happy life. I have had many friends. Now, if I go, won't it be a great thing if I should meet Isaac?" That was a nick-name he gave his son. His son was a great grandson of Paul Revere, and the boy was killed in the World War. It is said that Osler never knew a happy moment after that time. He called him Isaac after Isaac Walton.

I remember during the World War our commanding officer, Wm. C. Gorgas. I met him in Chicago. He called the officers together for the purpose of a conference. In that conference I had my first view of a man with whom I was to be associated with two years in military service. I looked at him with much interest because I knew I was in the presence of the greatest of sanitarians. I was in the presence of the greatest commanding officer of the medical department of the army that ever was known. Here was a man who cleared Cuba of yellow fever. Here was a man who banished the scourge and pestilence from New Orleans and from other Southern cities. Here was a man who made possible the building of the Panama Canal, who made that strip of land, which was the most pestilential hole on the surface of the earth, as safe and healthy as any place in the world and who made possible the industrial achievement of the century, the Panama Canal. He almost eradicated yellow fever from South America. After the close of the war, when he had been retired from the office of Surgeon-General, and he was retired two days after the Armistice, he was asked by the English Government and by the Belgium Government to undertake the eradication of yellow fever in their colonies. He attended the International Congress at Brussels and there he received all of the medals that usually go with the honor and glory of a nation. When he and his wife started back to England to make their final arrangements, on the way he was stricken with apoplexy. He said to his wife, "I feel that I am seriously ill." They took him to Millbank hospital upon the Thames, the English military hospital, and there out of the window he could see the ships go by in that great river. There came the King of England who placed decorations upon his breast, the Order of St. Michael and St. George, that carried with it Knighthood. And when the King of England pinned that ribbon upon that devoted breast, he conferred a degree of Knighthood upon as knightly a soul as we have ever known in the history of science or chivalry. Within a week or two after that, one morning about sunrise, he went out on that tideless sea with the light of glory in his face, and England gave him the greatest tribute that could be given to any man. And on a caisson covered with the Flag of our nation they took this man to the Church of St. Paul. They brought him from there back to the United States. For several days his body lay in the Capitol at Washington, where his old friends were able to see that dear face again. Then they took him to Arlington and there, with the firing of the military salute, with the notes of the bugle and the voice of the chaplain saying, "I am the Resurrection and the Life," so passed out that greatest of doctors. No greater honor, no greater distinction to any one.

So I leave you today. I thank you for your presence here.

President Mock: I wish to express our sincere appreciation at this time to all those who have contributed in any manner towards this occasion. It has long been the custom to contribute floral offerings to the deceased as an evidence of sympathy and respect. But what a beautiful spirit to scatter flowers of sympathy and encouragement and appreciation along the pathway of the living. They will silence these complaints of worry and care; their sweet fragrance will cheer the way of the weary traveler. For his contribution towards the elevation and preservation of the standards of medical education and for his efforts in the advance of medical science and his loyalty to his profession and his service to humanity, Dr. Vinsonhaler, I wish to present this token of our respect, appreciation, love and friendship, and may He who always doeth all things well shower His choicest blessings upon you.

(Dr. Mock here presents Dr. Vinsonhaler with a beautiful boquet of flowers.)

Dr. Vinsonhaler: I thank you.

Benediction.

SCIENTIFIC PAPERS

"Every physician realizes the importance of reading current medical journals and the value of discussing the various articles of interest found in these periodicals. The benefits to us individually, derived from preparing and presenting scientific papers, are often overlooked. It is surprising how clear one's knowledge of a subject becomes after making an honest effort to put it into words.

To prepare and to read scientific papers is one of the chief functions of a medical society and a hospital staff. These institutions serve as your best medium of scientific self expression and are worthy of your most conscientious efforts.

The following are a few simple well recognized rules for preparing and giving papers before these organizations:

1. Be brief. Papers should be short and concise if you wish to hold your audience.

2. Give your paper individuality. Incorporate in it your own ideas and experiences. Too much rehashed literature has little interest for your listeners.

3. Quote authors briefly giving them full credit.

4. Choose subjects of general interest. Papers read before organizations composed of men in general practice as well as men from every specialty should have some points that are of interest to them all.

5. Have your paper typed. Typing will not only improve your work but will enable you to furnish copies in advance to the men who are to discuss your paper so that they may become familiar with its contents."

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Original Articles

THE IMPORTANCE OF X-RAY EXAMINATION IN THE DIAGNOSIS OF DISEASES WITHIN THE THORAX*

D. A. RHINEHART, M. D., and
W. E. GRAY, JR., M. D., Little Rock

Every physician should have in mind a clear conception of the prevalence, the importance, and the variety of disease that may occur within the thorax. Some idea of the prevalence and importance of such conditions is shown by their frequency as causes of death. Heart disease, influenza and pneumonia, and tuberculosis form three of the leading six causes of death in the registration area of the United States. Studies conducted by the Committee on the Cost of Medical Care showed that in a typical American community, 60 per cent of acute morbidity was due to acute respiratory infections. Without making a statistical comparison, I believe that there are more different major diseases and more minor varieties of major conditions of the lungs than of any other single pair of organs within the body.

Such a variety of diseases, some common and some rare, few presenting marked early symptoms or characteristic symptoms at any time during their course, many having manifestations nearly alike, often makes the diagnosis of intrathoracic lesions very difficult.

In arriving at a diagnosis, information is obtained from the history of the patient's illness, from the physical examination of the chest, from a few laboratory procedures, and from *X*-ray examinations. With different patients, different procedures are necessary. Some conditions may be recognized from the history. With others, the history and the physical examination suffice. At other times laboratory examinations and *X*-ray study are necessary for correct conclusions. Sometimes a patient recovers or dies without a diagnosis being made by the most painstaking investigation.

The particular advantages of *X*-ray examinations are numerous. When of sufficient extent to replace air in the alveoli and smaller bronchi in macroscopic amounts, to materially increase the air in one or both lungs, or to produce a change in the size or the contour of the heart or other mediastinal structures, it is my belief that any pathologic change occurring within the thorax can either be seen with the fluoroscope or will cause shadows on *X*-ray films. The visualization of these changes in this manner gives a very good idea of the type of pathological process that is present, shows clearly its anatomical extent, and, when considered with the symptoms and physical findings, nearly always leads to a correct diagnosis.

X-ray examinations are of particular value in the examination of patients suspected of having tuberculosis. Characteristic shadows on *X*-ray films form one of the five criteria mentioned so often in the diagnosis of tuberculosis. Conversely, the absence of such shadows is strongly presumptive evidence that the patient does not have tuberculosis. Dr. Riley is responsible for the statement that he has not seen, except in one instance, tuberculosis develop when properly made stereoscopic *X*-ray films had shown the lungs free from signs of tuberculosis.

X-ray examinations are also of great value for accurately determining the extent of the infectious process, for differentiating types one from the other, and for studying progress during the course of the disease. *X*-ray films show better than any other method of examination the extent of the involvement and much as to the type of infection in the lungs. Attempts have been made to classify cases of

*Read before the Fifty-eighth Annual Session of the Arkansas Medical Society, held in Hot Springs National Park, May 2, 3, 4, 1933.

tuberculosis into incipient, early advanced, etc., just by the appearance and extent of the lesions as shown on films.

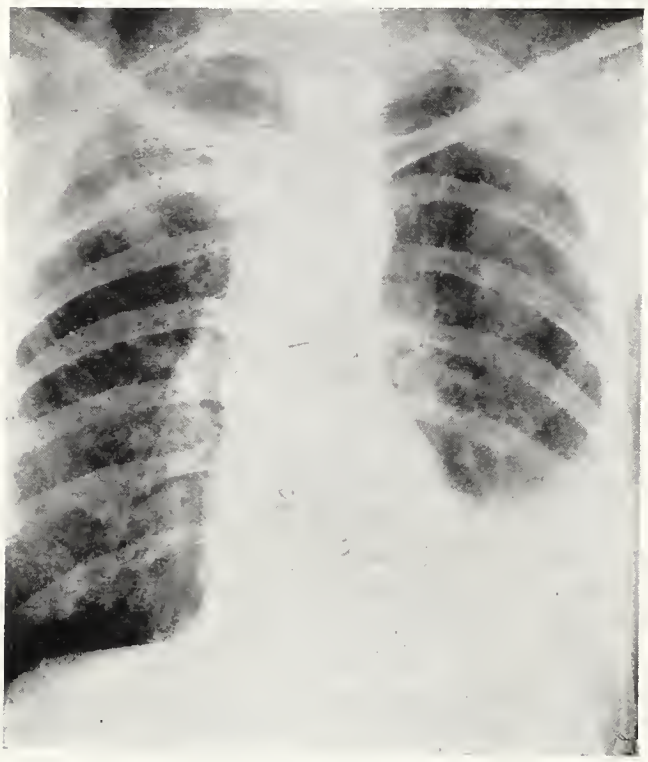

Fig. 1

Tuberculosis of the lungs is usually of the chronic ulcerative or chronic fibroid type, beginning near the apex of one lung. Other much rarer and more serious types are acute miliary, acute caseous tuberculous pneumonia, and acute tuberculous broncho-pneumonia. The basal type is a serious form of chronic ulcerative tuberculosis having its origin in the lower part of the lung. Acute miliary tuberculosis is often mistaken for typhoid fever or malaria, the acute broncho-pneumonic form for broncho-pneumonia, and acute caseous tuberculous pneumonia for lobar pneumonia. In all of these, the *X*-ray examination of the chest is often positively diagnostic. In the basal type of tuberculosis, when diagnosed, the correct treatment is at once indicated, for without lung collapse by means of artificial pneumothorax, patients so afflicted usually die.

One other type needs to be mentioned. In childhood tuberculosis there are no physical signs; there are few symptoms. The condition is suspected whenever a child has a positive tuberculin reaction. The diagnosis and extent is absolutely dependent on the changes that have occurred in the tracheobronchial lymph glands as shown on *X*-ray films.

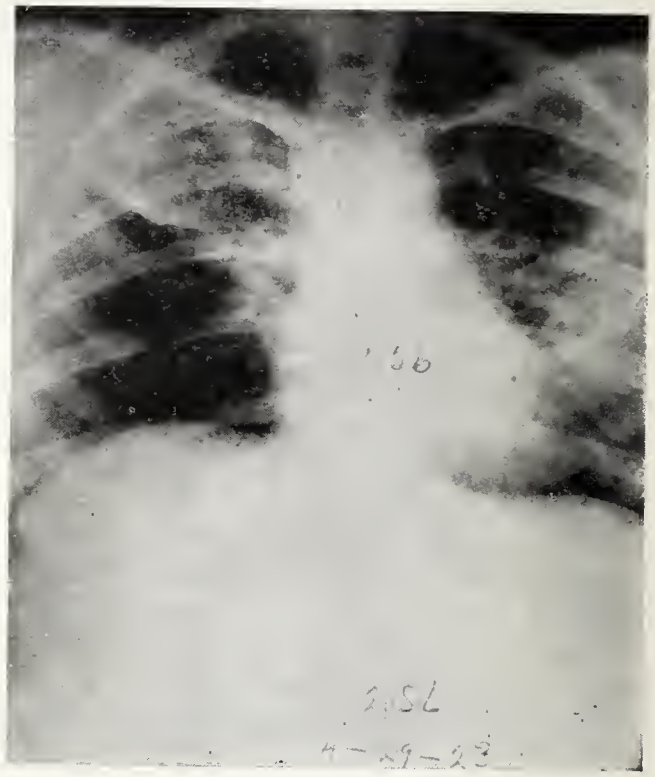

Fig. 2

X-ray examination is of the greatest aid in following the progress of a patient with tuberculosis. While not often an accurate indication of the state of activity, the changes that are noted in its anatomical distribution as they are shown on a series of films made from time to time are of the greatest value in guiding the treatment. Accumulation of fluid in the pleural cavity, particularly when encysted, and the size and location of tuberculous cavities can be determined by *X*-ray examination better than by any other method.

In the forms of pneumonia, the history of the patient's illness and the physical examination usually suffice for a correct diagnosis. Some of the less common conditions, notably massive atelectasis or collapse occurring after operation or after aspiration of a foreign body and mistaken for pneumonia, and hilum or central pneumonia, require *X*-ray examination for differentiation. In the complications and sequellae of pneumonia, *X*-ray studies are of the greatest value. Empyema, either in the general pleural cavity or encysted in an interlobar fissure or in some walled-off pocket, is the most frequent of these. In the pneumonias that complicated the mild epidemic of influenza that we had in this state this last

fall and winter, there were more encysted empyemas than infections in the general pleural cavity. In the operative treatment of

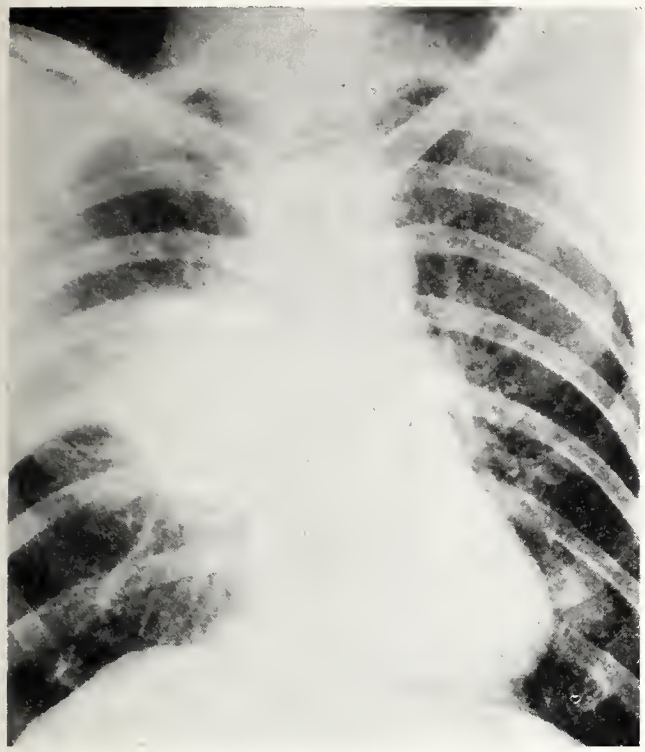

Fig. 3

empyema, particularly the localized form, the location of the best place for drainage, the presence and extent of residual pockets, etc., can only be determined by *X*-ray studies.

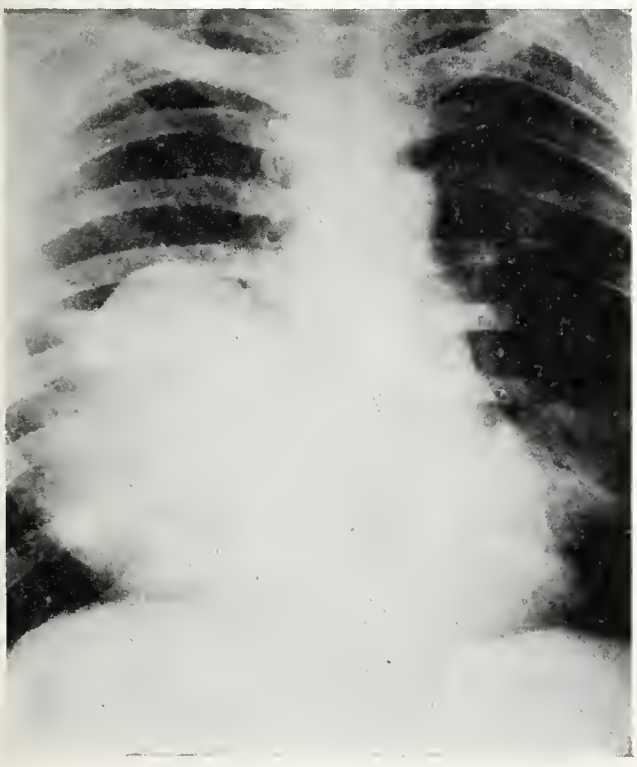

Fig. 4

Coincident with the general increase in the prevalence of malignant tumors of various kinds, malignancies within the chest, both primary and metastatic, are on the increase. There is a widespread belief among roentgenologists that many more primary tumors of the lungs are seen now than formerly. We have encountered at least six of these in the last twelve months, all but one of which were correctly diagnosed at the first examination. Metastases to the lungs from tumors of the breast, from sarcomas of the bones, from the testicle, and from other parts of the body are becoming increasingly frequent. Their detection and the determination of their progress are entirely dependent on the characteristic shadows found on *X*-ray films.

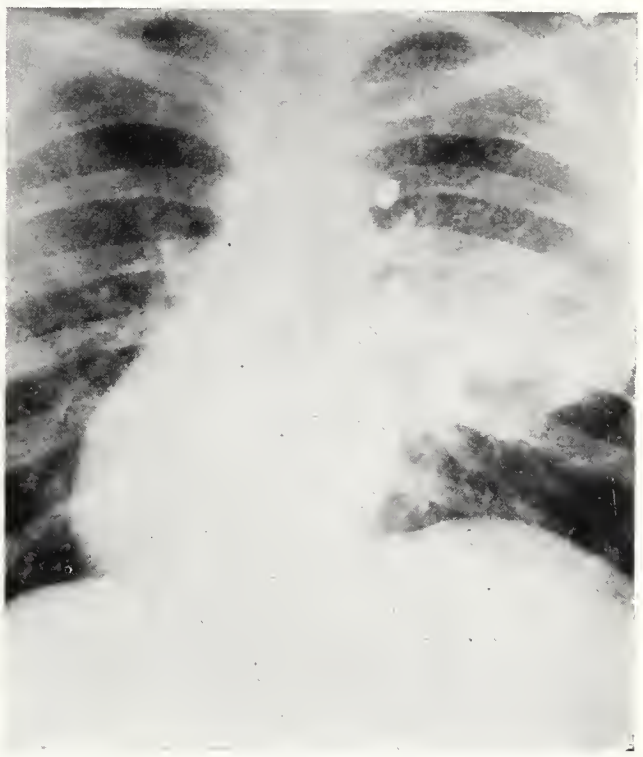

Fig. 5

Other conditions that are occasionally seen are readily diagnosed by *X*-ray examination. Among these may be mentioned lung abscesses, either single or multiple. These occur most often after the removal of the tonsils under general anesthesia, but they may follow operations on the throat, as a sequella of pneumonia, as metastases from distant infections, and occasionally without known cause. Chronic bronchitis and bronchiectasis, when the bronchi are injected with an opaque iodized oil, are easily detected by *X*-ray examinations.

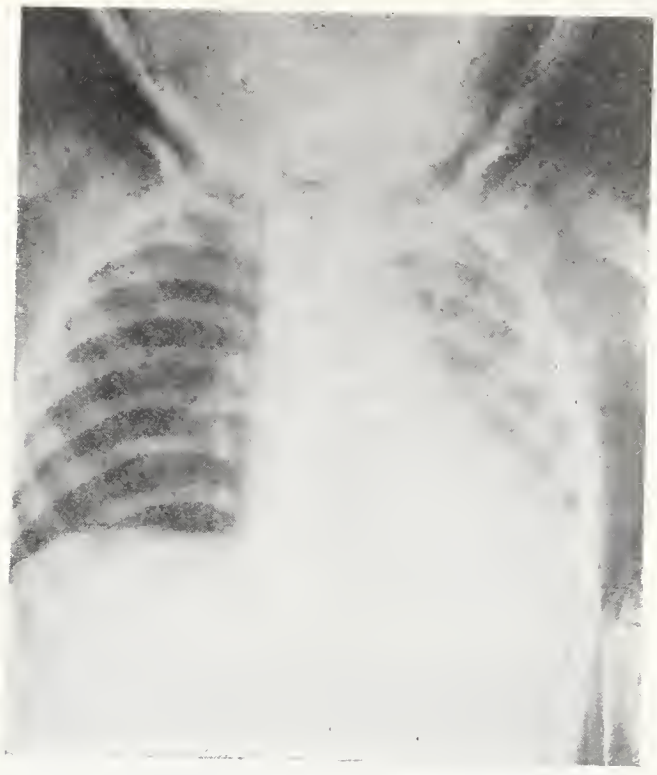

Fig. 6

Both opaque and nonopaque foreign bodies may be found by *X*-ray studies. The shadows of the former can always be seen; the presence of nonopaque bodies is shown by changes in the air content of the lungs. An obstructive emphysema results. If the foreign body be in the trachea, the accumulation of air in the lungs causes the diaphragm to be depressed and characteristic respiratory changes in the size of the heart. If in a main bronchus, the emphysema expands the lung, pushes the diaphragm down, and displaces the mediastinum. Later the bronchus becomes plugged, the air is absorbed, and a condition of massive atelectasis supervenes.

In infants and young children, respiratory embarrassment is most often due to an enlargement of the thymus gland. This condition can be shown by anteroposterior and lateral films of the thorax. In one patient recently examined, the pressure was such that a double right angle bend was made in the trachea at the thoracic inlet. This infant had had a respiratory difficulty since birth.

Except at the base, other mediastinal structures such as the aorta and heart are clearly outlined by the adjacent air-filled lungs. This makes possible the examination of the aorta, determining its size, its density, enlargements, and tortuosities when present, and renders the diagnosis of aneurysm rather easy. Involvement of the mediastinal lymph nodes from malignant growths, accumulations of fluid in the pericardium, or along the mediastinal pleura are also seen.

For years the size and shape of the heart has been the subject of investigation. These are shown on films made with a long anode-film distance to reduce distortion. More recently studies in one of the oblique directions have added additional information with reference to the size of the different chambers. Contractions of the auricles and ventricles are visible on a fluoroscopic screen and irregularities are at once apparent. An examination of the heart for organic or other heart disease cannot be considered complete without these determinations by means of roentgen studies.

There are very few pulmonary and cardiac conditions that cannot be found by *X*-ray examinations. These are those that do not replace or increase air in the lungs, change the pleura, nor cause changes in the activity, the size, or the shape of the heart. Acute bronchitis and influenza, with the infection within the bronchi, pleurisy before or without the formation of fluid or an exudate, and heart disease involving chiefly the musculature, as a myocarditis, are the most common of these. Except in such conditions, *X*-ray examinations always will show sufficient changes to be of great value in the diagnosis of diseases occurring within the thorax.

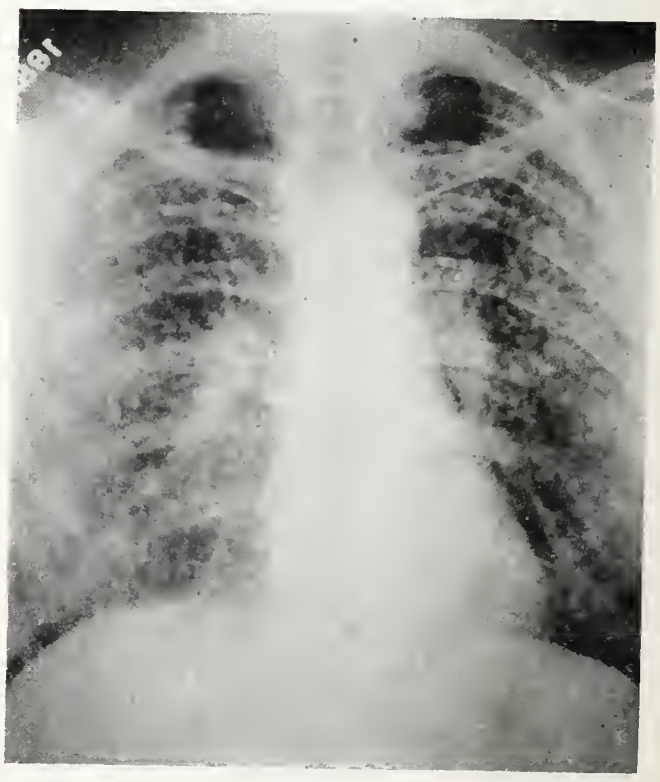

Fig. 7

Fig. 1. Incipient pulmonary tuberculosis in the apex and infraclavicular regions of the right lung; small pleural effusion on the left side.

Fig. 2. Acute tuberculous pneumonia with a cavity in the upper lobe of the right lung; crossed infection in the left lung.

Fig. 3. Primary carcinoma of the right lung.

Fig. 4. Metastatic malignant tumor of the right lung secondary to a tumor of the testicle.

Fig. 5. Lung abscess in the right lung following the removal of the tonsils under general anesthetic.

Fig. 6. Non-opaque foreign body in the right main bronchus.

Fig. 7. Second stage pneumoconiosus in the lungs of a worker in a stone quarry.

DISCUSSION

DR. J. D. RILEY, Booneville: Dr. Rhinehart has presented a very practical and fact containing paper and I think that I can probably not add to it.

X-ray examinations should be routine in every case of tuberculosis. The X-ray, in some instances, reveals a lesion of considerably greater extent than was indicated by clinical examinations.

Uniformity in disease is unattainable. Use of X-rays help materially in determining the extent of disease but even the X-ray is not by any means definite since the human element must enter into the technique of taking pictures and even more into the interpretation of the same. No one can arrive at mathematical exactness as to the involvement in any organ, even by both physical examination and X-ray findings. Nevertheless, the X-ray is the one single most important and most dependable method of obtaining evidence of diseases in the chest and of arriving at a conclusion as to the probable amount of involvement. I think that both fluoroscopy and X-ray pictures will show evidence of any disease in the chest which is of sufficient extent to increase or decrease the amount of air in the lungs or to restrict movement on respiration, or which changes the size or contour of the organ involved.

I have only known of one case in which fluoroscopy and stereoscopic X-ray pictures of the chest failed to reveal any evidence of tuberculosis and which was proven to be tuberculosis later. Stereoscopic pictures are more accurate than single films, but I should like to make the point that they eliminate rather than reveal inasmuch as a stereoscopic plate might mislead you into an interpretation of more than is really present because of a lack of the third dimension, which must be left to the imagination, and what might appear to extend through the chest may not be very thick anterior-posteriorly, and this dimension can only be had either by fluoroscopy or pictures taken giving different positions, whether or not stereoscopic.

Tuberculosis is classified into childhood, first, second and third stages by the amount of involvement, which is most accurately determined by X-ray pictures.

In the diagnosis of childhood tuberculosis, we are entirely dependent upon the information given by X-ray pictures.

A series of X-ray pictures taken at intervals during the treatment of a case of tuberculosis are, at present, our most accurate method of arriving at the pathological activity, whether progressive or retrogressive. I refer to pathological activity because clinical activity is determined from clinical symptoms. The X-ray findings are diagnostic but not prognostic. By the use of X-rays, both by fluoroscopy and by pictures, one should be able to determine the size and location, to the fraction of an inch, of any abnormal shadow. I think that one can nearly always diagnose pleurisy with or without the formation of fluid.

While we must admit that the X-ray is the one most reliable method of arriving at accurate information as to the amount of pathological involvement in the chest; nevertheless, in most instances the roentgenologist should not make a diagnosis but should render his physical interpretation of his plates to the internist as an adjunct to all clinical findings. No case suspected of having the diseases of the chest discussed in Dr. Rhinehart's paper should be dismissed as normal until after X-ray pictures have been taken.

DR. WM. R. BROOKSHER, Fort Smith: There is nothing that I can add to this able exposition of roentgenology in chest diseases, either from a clinical or a roentgenological standpoint. Despite the known value of the roentgen ray in the diagnosis of chest diseases, it is only too often brought into use as a last resort. Many misconceptions exist as to its value among the general practitioners in this country today. It is not a rival of the clinical examination in any sense, but it is an extremely useful adjunct thereto. In the majority of cases, as Dr. Rhinehart has pointed out, findings of diagnostic value will be obtained, and only in the minority of the cases will clinical aid be required for their differentiation. However, I would like to emphasize that it is only with the active cooperation of the clinician that we can arrive at such a diagnosis, no matter how positive the data elicited by the roentgenologist examination may appear.

Dr. Rhinehart, in closing: I want to thank Dr. Riley and Dr. Brooksher for their comments. I am presenting Dr. Gray, my associate in this work, and also the exhibit which shows our results.

TRAGEDIES OF SURGERY*

Chas. S. Holt, M. D., Fort Smith

In spite of the brilliant advances made by surgery in treatment of human disease since the advent of aseptic surgery, some poor results still continue to creep into the practice of every active surgeon, no matter how skilled a technician he may be. For some of these, the blame may rest upon his shoulders; others are due to the development of unexpected complications; and still others arise because of the present limitations of the art. It therefore behooves us as surgeons to occasionally take stock of ourselves. In a classical essay entitled, "Calamities of Surgery," which was delivered in 1868, Sir James Paget, stated:

"There are people who seem to have the happy art of forgetting all failures, and remembering nothing but their successes, and as I have watched such men in professional life, years have seemed to make them worse instead of better surgeons. They seem to have the faculty of reckoning all failures as little, and all successes as big. They make their brains like sieves, and they run all the little things through, and retain all the big things which they imagine to be their successes, and it is a very mischievous heap of rubbish which they retain.

"Therefore study fully and fairly beforehand all the things that may occur to you, in an operation and after it; make yourselves as far as you can masters of each case, and generally masters of your whole profession, then you will be neither ashamed of your failures nor afraid of your responsibilities."

He recites instances of deaths in his practice from such simple procedures as catheterization, which complication sterilization has taught us to prevent today. He tells us of a mortality of 2 per cent for the excision of sebaceous cysts; of 33 per cent in the treatment of strangulated hernias, and 57 per cent from amputations.

We have therefore chosen this subject in order to present a few case histories illustrating modern surgical difficulties with the hope that others may profit from them as we have.

A well developed young blacksmith of 31 presented himself with a tremendous double inguinal hernia of fourteen years standing and stated that he was incapacitated by it. A bilateral herniotomy with amputation of some four pounds of adherent omentum was carried out without difficulty. Convalescence was uneventful until the eighth day when the patient was suddenly seized by excruciating epigastric and chest pain. He became cyanotic, markedly shocked and died within a few hours. No operation, however slight, is free from danger. Pulmonary embolism continues to strike in from one to six cases out of every 1,000 surgical operations according to various statistics.

A boy, aged 17, was admitted to the hospital on the fifth day of an attack of acute appendicitis, with board-like abdomen, fever, and rapid pulse. Because of a respiratory rate of 50, X-ray of the chest was made and found to be negative. Under Ochsner's conservative treatment, the peritonitis subsided without localization of a palpable mass. On the 4th day after admission slight jaundice was noted. On the following day the patient suddenly coughed up a litter of foul pus containing colon bacilli. He continued to be septic, and a two stage transthoracic drainage of a right subphrenic abscess was performed without affecting the downward course. Further X-ray studies revealed an abscess in the lower lobe of the right lung. This was uncovered by resection of the fifth, sixth and seventh ribs and drained. Little improvement was noted even following blood transfusions, and the patient died within a few days. The LESSON in this case is the importance of the recognition and institution of proper treatment in acute appendicitis within forty-eight hours from the time of onset. Secondly, the possibility of subphrenic abscess must always be kept in mind, and not too much dependence placed on a single negative X-ray.

A female baby, aged 15 months, was brought to the hospital because of abdominal distention, and symptoms of an acute abdomen of several days standing. Operation was deferred because of the extremely poor condition of the child. Under conservative treatment, the symptoms abated somewhat, and a smooth, movable mass the size of a croquet ball could be outlined in the upper left quadrant. Under a preoperative diagnosis of probable sarcoma of the left kidney, exploratory laparotomy was carried out, and revealed a solid tumor of the left ovary with twisted pedicle and hemorrhage. Microscopical study

*Read before the Fifty-eighth Annual Session of the Arkansas Medical Society, held in Hot Springs National Park, May 2, 3, 4, 1933.

confirmed the clinical impression of sarcoma. In spite of an uneventful convalescence, and freedom from symptoms at the present time, recurrence will undoubtedly take place. This condition fortunately is rare, occurring according to Mixter five times in 22,000 admissions to the surgical wards of the Children's Hospital in Boston. It however constitutes an unsolved surgical problem at present.

To this same category belongs the treatment of advanced cancer of the skin and mouth. These tragedies are only too often the result of lack of proper early treatment, rather than as a result of surgery.

A man, aged 67, came to the clinic with a large fungating ulcer on his neck. Three years previously a lesion on the lip, diagnosed as cancer, had been treated elsewhere by a single application of radium and supposedly cured. No treatment was given to the regional lymph glands. One year ago a lump developed on the left side of the neck. The patient unfortunately fell into the hands of a quack who diagnosed tuberculosis of the glands, which diagnosis was said to have been confirmed by a mail order laboratory from studies of the blood. The medical attendant then proceeded to incise and curette the swelling. The correct diagnosis was soon obvious. A course of "Koch's Cancer Serum" was given with the result as described when first seen by us. A course of deep *X*-ray therapy was given as a palliative measure, the patient dying a few months later. We have as yet to learn of any case of metastases to the glands of the neck being cured by any means. We do not wish to enter into a controversy concerning the respective merits of surgical excision or radiation therapy in the treatment of carcinoma of the lip, but do wish to point out that the glands of the neck should receive attention at the same time the original lesion is being treated, and that any mass developing in a patient who is a victim of malignant disease is a recurrence or metastasis until proven otherwise.

We have here another victim of improper treatment. This patient, aged 50 developed a small warty growth in front of the left ear fifteen years ago. It was treated by a cancer quack with paste resulting in loss of part of the ear, and rapid recurrence. Another paste preparation was applied, and removed the remaining portion of the ear without affecting the growth. The lesion was now treated for lupus without result. Eventually the patient received an acceptable form of radiation therapy, resulting in slowing down the rate of growth but too late for any hope of cure. The patient was told at an internationally famous clinic that nothing could be done for him. Later one of the leading surgeons in Philadelphia excised the entire area with diathermy, but recurrence took place before the granulating surfaces were epithelialized. Severe pain was controlled satisfactorily by deep *X*-ray for six months, but the patient is now resorting to morphine.

This woman, aged 42, was somewhat more fortunate. Four years ago she noticed a scaly area on the left side of the nose. She went to two "self-styled" cancer specialists who applied pastes, resulting the first time in a hole in the side of the nose, and the second time in the loss of the tip. Two months later a definite epithelioma was present in the edge of the scar. Two hyperintensive *X*-ray treatments resulted in a prompt disappearance of the lesion. If no recurrence is noted at the end of a year, some form of plastic procedure will be in order to remedy the defect which at present prevents the patient from obtaining employment.

An Indian woman, aged 75, came to us with an extensive fungating lesion involving the left side of the face and invading the antrum. It had been present for fifteen years, beginning as a small nodule in front of the ear. She had been through a number of paste and ointment treatments, without ever consulting a licensed physician. She was given a deep *X*-ray treatment to control the pain, but died three months later. How easy it would have been to have destroyed the initial lesion by radiation or excision fifteen years ago!

The treatment of carcinoma of the hand has always constituted a difficult surgical problem. This patient came to the clinic in 1922 because of an ulcer on the back of his hand which would not heal. It was obviously malignant. Amputation was advised, but absolutely refused by the patient who insisted at his own risk on radium treatment. The lesion healed quickly under radiation. However he returned six months ago with a local recurrence and a hard nodule the size of a hickory nut in the axilla. While these lesions on the hand not infrequently heal under radiation therapy, metastasis is not prevented, because

the growth is usually of the prickle cell variety. The method offering most is a wide excision of the lesion preferable with the cutting current, and a simultaneous dissection of the axilla, with postoperative radiation.

The prickle cell carcinoma of the skin elsewhere is similar. A lesion of this type, which proved to be radio resistant, was excised by electrocoagulation with the upper part of the ear from this patient two years ago, and regional lymph glands radiated with apparently satisfactory result. He returned recently with a recurrence in the glands of the neck, which were excised as a palliative measure. Histological study of a biopsy specimen from the original growth would probably have foretold this event but not affected the outcome.

A white male, aged 65, was admitted to St. John's Hospital, complaining of inability to pass urine. His symptoms became acute three days ago at which time his physician was forced to resort to a prolonged session with a metal catheter to obtain the desired result. On the day previous to admission, a similar session resulted only in the evacuation of a few drops of bloody water. The patient was markedly septic. The penis and scrotum were red, edematous and intensely swollen. The prostate was enlarged to the size of a small orange. A distended bladder could be palpated at the level of the umbilicus. Under local anaesthesia, suprapubic drainage was done, and was followed by multiple incisions in the penis and scrotum for the extravasation of urine. In spite of this, the patient developed extensive gangrene and died from sepsis on the fifth day. Gangrene of the penis and scrotum from urinary extravasation is a rather infrequent occurrence. Lower in studying 200 cases of such gangrene in the literature found only 5 per cent due to urinary extravasation. It carries with it a high mortality, four out of the fifteen reported cases dying, and always a severe morbidity. It is a somewhat terrifying experience for the patient to have the entire scrotum come away on the dressings. In three previous similar cases, extensive plastic procedures were necessary to remedy the defect. The LESSON here is that less damage can be done by a suprapubic puncture than by a combination of a metal catheter and force.

A white girl aged 18, was unfortunate enough to suffer an extravasation of a few drops of calcium chloride which was being administered by her physician for hay fever, with resultant slough of the cubital region of the arm. Closure of the defect was effected by a plastic procedure but was not successful. The entire wound broke down. Six weeks later the clean granulating base was covered with small whole thickness grafts. The wound was rapidly epithelialized, but the result leaves much to be desired from a cosmetic standpoint, and the patient carries a disfiguring scar.

A farmer, aged 42, was carried into the hospital with an anterior dislocation of the hip of somewhat over four weeks standing. An attempt to reduce it under anaesthesia resulted in a fracture of the neck without altering the dislocation. Using the anterior approach through a Sprengel type of incision, the joint was easily exposed, and the head which was entirely without blood supply, removed. The acetabulum was cleared of debris, and the remaining portion of the neck fitted into it. The final result was a shortening of three inches, but with a fair function. It would have been wiser to have resorted to open reduction in the first place as emphasized in a recent article by Miltner and Wan. Bone atrophy which rapidly follows injury, renders bone too fragile for extensive manipulation.

Two sisters, aged 22 and 19, came in for the removal of simple goiters, which in seven years time had attained the proportions of small grapefruit, and which interfered with turning the head, and caused some dyspnea at times. The basal metabolic rates were minus 11 and 0 respectively. The tumors, which strangely enough were unilateral, were removed by a conservative partial lobectomy. Six months later both patients returned with outspoken signs and symptoms of myxedema and basal metabolic rates of minus 27 and 35 respectively. Simple goiters should not be removed during adolescence unless producing symptoms from pressure. Little consolation is obtained from knowing that myxedema is not infrequently associated with goiters of this type, because the logical conclusion in this case is that surgery certainly hastened its development. Fortunately however, symptoms can be controlled by the use of thyroid extract.

Now in order not to be misunderstood, because not all of our patients are tragedies of surgery, we wish to cite the following example of a tragedy converted into a happy result by surgery. A teacher, aged 32, came to us with the story that as a result of falling on a buzz saw six years previously, his penis had been split in the midline from the external meatus to the abdomen, and that it had failed to heal together. Under spinal anaesthesia, after performing an external urethrotomy, the urethra was freed and sutured around a N. 20 rubber catheter, and an anatomical restoration affected by sutures in layers of the various structures. The final result was anatomically, and as we have been assured, functionally good.

One might question the propriety and value of a narration of a series of cases like this. Several purposes have been uppermost in our minds. First of all that certain of the pitfalls we have fallen into might be avoided by others under similar circumstances. As Sir James Paget says: "If you know that another man has fallen into a fault, the blame for your falling into the same ought to be much greater, not less."

Only by the most careful study of patients and the rejection of the unfit for surgery, and by the most meticulous attention to details before, during and after an operation, can the incidence of unfortunate results be cut down. Then as Finney, states:

"When things go wrong in spite of the fact that one has done one's best, has met one's responsibilities and obligations as best one could, great satisfaction will be experienced if in thinking it over one can honestly say to himself: if I had it all to do over again, I couldn't do differently!"

Even so, it is no consolation to the relatives to hear that if they had sought surgical aid earlier, that the outcome might have been different, because they have usually done the best they have known how. If we could only get it across to them that any abdominal pain is potentially appendicitis, and that 95 per cent of the patients who die from acute appendicitis die unnecessarily because of delay in operation, and that the majority of those dying have had one or more purgatives, a large number of the tragedies of surgery would be eliminated. If we could convince them of the importance of the treatment of PRECANCEROUS lesions, such as scaly areas on the skin and lips, roughened areas in the mouth from ill fitting dentures and snags of teeth, and leukorrhea in the parous woman, the other major part of our problem would be solved.

In the essay previously mentioned the prevention of tetanus is stated to be impossible, but today is one of the first things acquired by the third year medical student. It is our hope that in the next fifty years that most of the difficulties we experience today, and we refer particularly to the management of advanced malignancy, may be ironed out as smoothly as has been the problem of infection by the development of aseptic surgery. Our problems today will be solved by medical research and advancing medical knowledge of the future, but new difficulties will in turn then be presented for study by the future generations of the disciples of Aesculapius.

We must, in the meantime, until some such time does arrive, educate ourselves to recognize the earliest clinical manifestations of pathological processes; and the laity to seek reputable medical advice before their disease assumes the mountainous proportions only too often leading to another so-called "Tragedy of Surgery."

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DISCUSSION

DR. I. G. JONES, DeQueen: "Consistency is a jewel," rare and seldom seen. I believe I am consistent in saying that there is not another surgeon within the boundaries of the State of Arkansas that would so freely and fully parade the tragedies in his practice as has been done here today by Charlie Holt. I don't think there is another man in the State who has the nerve to do so. Furthermore, it is another exhibition of his nerve to ask me to discuss his paper. May I ask as a preliminary, do we profit by our mistakes and errors? This calls to mind a recent occurrence, and I assure you in the beginning that I am not parading my own mistakes but simply recording the observations. I was once called on to assist in an operation with a tentative diagnosis of acute appendicitis. The surgeon was so sure that it was acute appendicitis that he made a right rectus incision even with the umbilicus. The patient was a married woman. To his surprise and mine, when the peritoneum was opened the belly was full of blood. He immediately dived for the right tube. Fortunately he caught it. We did not stop the hemorrhage. After much wondering, he examined the left tube. It was also ruptured. A double ectopic; both tubes ruptured. A vaginal and abdominal examination had not been done on that case.

Less than one month later I was asked to assist the same surgeon with another tentative diagnosis of acute appendicitis. In this case a vaginal-abdominal examination had not been made. The appendix was absolutely normal. There was pus double pus tube. I made no comments during the operation.

Another tragedy of surgery that occurs to my mind is the attempt to do surgery with inadequate training, inadequate experience and inadequate equipment. I have had the pleasure of visiting a number of hospitals in the State of Arkansas within the last four years. It would probably surprise some of you, who haven't had that privilege, to know how many hospitals in Arkansas are operating without a laboratory. I was in one hospital recently in which the steam guage on the sterilizer wouldn't work. I asked the head nurse, who was doing the sterilizing while I was there, how she knew how much pressure she had in there. She said, "I have had so much experience that I merely guess."

Another tragedy that Dr. Holt's paper brings to my mind is the tragedy occurring before surgery is done; that is, the tragedies perpetrated by the general practitioners. This recalls to my mind the results of the last ten cases of acute appendicitis on which I have operated. I looked these records up yesterday. Of those ten cases, seven had been seen by other physicians. Six of the cases had had severe purgation. Five of those appendices were horribly ruptured. There is a little irony in that situation, and that is this, that those men who need instruction along this line are not here today. May I give a name for that type of treatment? Malicious meddling are the only words that I can apply to it.

Next, the tragedy, from the patient's standpoint, is in the selection of the surgeon. Let your own mind dwell upon that.

Dr. Holt's paper recalls a very pleasant series of intimate talks which I had within the last year or so with one of the outstanding bone men in the United States, because this statement was given in confidence and he asked at the time that I not repeat it. For that reason I will not mention his name. He is the author of several books on fractures and bone surgery. In reply to my question, "Doctor, what can you tell me about open reduction of fractures?" he said, "Open reduction of fractures," and he did not limit it, he said, "is the ideal, but we do not dare tell that to the profession yet." I give that to you for what it is worth.

The next, and I know you are going to condemn me when I say it, is the tragedy of conservative surgery, especially in gynecological work, as compared with the value of radical surgery. Let your minds go back over your practice to those poor women on whom you or some other surgeon has operated and think of those who have come to you later on requiring further surgery where, had adequate radical surgery been done in the first place, they would still be living normal happy lives.

Lastly, a tragedy of the type that I just mentioned, and which I want to call your attention to, for which I will probably be condemned again, if that of those women who come to us for any type of abdominal surgery, those women who are the mothers of one, two, three or more children, those women still young, possibly in their early thirties, whose shoulders are bent down with the burden of rearing these children. How simply it would be to detach the tubes and assure her of no more children but help to rear what she has. There is another tragedy in case it isn't done.

I hope you will be merciful in your condemnation of what I say. I consider it a pleasure and honor to discuss so fine a paper as Dr. Holt has given us. I thank you.

DR. EARLE H. HUNT, Clarksville: I have thoroughly enjoyed Dr. Holt's most valuable paper. Few of us have the nerve to report the tragedies we have. We report our successes more often. The doctor is to be congratulated for being so frank and bringing these interesting cases before us. We have all had many tragedies and lots of near tragedies.

I remember one case which I shall tell you about. The summer after I had finished my junior year in Medical College a doctor in my town was called in to see a lady in labor. The baby was being born, a breach presentation, when the doctor walked in. Of course, she got a terrible laceration. The doctor was not prepared at the time to repair the laceration. He drove back to town to get the instruments and asked me if I didn't want to go down with him and help. I was glad to go.

He got the lady across the bed and sewed her up. I held one leg and looked on attentively. When he got through, he asked me how it looked. I replied, "It looks better than it ever did." Then her husband jumped on me. Just another near tragedy. (Applause.)

DR. HOLT, in closing: I have nothing further to say except that I enjoyed Drs. Jones and Hunt's discussions very much and appreciate what they had to say.

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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Editorial

REPORT OF THE DELEGATES TO THE EIGHTY-FOURTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION HELD IN MILWAUKEE, JUNE 12-16, 1933

The first meeting was held Monday morning, June 12, Dr. Fred C. Warnshuis, presiding. Of the official family on the speakers rostrum included President E. H. Cary, Dallas, Texas; President-elect, Dean Lewis, Baltimore, Md.; Viee-President, Rudolph Matas, New Orleans, La., and Seeretary, Olin West, Chicago. The total registration of the physicians exceeded 4,600. Those from Arkansas included: William R. Bathurst, Little Roek; J. H. Burge, Lake Village; Alan G. Cazort, Little Roek; K. W. Cosgrove, Little Roek; Paul L. Day, Little Roek; D. W. Goldstein, Fort Smith; F. L. Husbands, Blytheville; W. C. Langston, Little Roek; N. J. Latimer, Corning; M. F. Lautman, Hot Springs; J. G. Mitchell, El Dorado; D. A. Rhinehart, Little Roek; Stevenson, Fort Smith; Arthur F. Hoge, Fort Smith; Fred Kroek, Fort Smith; M. J. Kilbury, Little Roek.

The first report was by the Referenee Committee on Credentials, a member of this eommittee was your delegate, Dr. D. A. Rhinehart, Little Roek. (If you doubt it, see pictural section, Chieago Tribune, June 13.)

In president E. H. Cary's address he said, "I am glad to state that your Board of Trustees will be able to report that during these trying times and in the faee of the greatest period of expansion of the aetivities of our organization, the eeonomies established have made it possible to earry on effieiently without impairing the reserve fund which has been so eonsistently developed and whieh must be maintained.

We may congratulate ourselves on the appreciation the publie has shown through its acceptanee of Hygeia, whieh has been self-supporting and will inerease in circulation with improved business eonditions.

Undoubtedly the control of newspaper publieity as to medical matters has been in the interest of the publie and the means of elim-

inating much misinformation. It reflects credit of an unusual order on the talent and perspicaeity of the editor of The Journal.

The Committee on Foods is developing contacts and generating influences which will be far reaching because the people of this country are becoming more and more interested in the endorsement of this committee, which is given only when spurious claims are eliminated from the advertisements of manufacturers of foods."

Sections of Seientific Assembly met in the Milwaukee Auditorium, also in this building included the commercial and scientific exhibits.

In the scientific exhibit space 937, section on Ophthalmology, we are pleased to note Paul L. Day, William C. Langston and K. W. Cosgrove, University of Arkansas School of Medicine, Little Roek. Cataraet and other oeular changes resulting from a defieiency of vitamin G. Exhibit of photographs, charts and histopathologic sections illustrating the various phases of vitamin G deficiency manifestations, with speeial referenee to eataract and other ocular changes, and the effeet on such ocular changes of the addition of vitamin G to the experimental diet. One young rat exhibited had both of his eyes eovered by the pearly film whieh had been induced by the absence of the vitamin.

The practiee of medicine by contraet, and the solicitation directly or by paid solieitors and certain schemes, born of the desire of corporations and individuals to profit, rapidly extending commercialism into medical service was condemned.

President-eleet Lewis and President Cary lauded the government for economies in hospitalization and medieal care for ex-service men.

Among other topies discussed by the House of Delegates ineluded the economics of medical service, changes in the nature of medical education, the certification of speeialist and the routine work of the American Medieal Association. The delegates tabled a resolution of the Committee for the Investigation of Birth Control and unanimously adopted a resolution against the perseeution of any human being because of race or religion.

Personal and News Items

Dr. James D. Kinley of Little Rock is now loeated in Beebe.

Doctors visiting in Little Rock during the past month were: S. J. Hesterly, Prescott; J. M. McLendon, Gould; W. G. Hodges, Malvern; Author Fowler, Humphrey; and E. W. Blackburn, Ozark.

It is with regret that we announee the deaths of Mrs. Riley, wife of Dr. J. D. Riley, Superintendent of the State Sanatorium, July 18, 1933, and Mrs. Willingham, wife of Dr. J. J. Willingham, August 8, 1933, Booneville.

The Craighead, Greene, Lawrence, Randolph and Clay County Medieal Soeieties gave a fish fry at Current River Beach, July 27. Talks were made by Dr. L. J. Kosminsky, President, Arkansas Medieal Society, and Dr. W. B. Grayson, State Health Offieer.

A CORRECTION—We wish to apologize for an error in the July issue of the Journal. Following the name of Dr. Kosminsky, we used the letters "F. A. C. S," which was incorreet.

The Staffs of the Leo N. Levi Memorial Hospital and the Charles Steinberg Clinic will hold their third Clinical Conference on Thursday, October 5th.

The guest speaker will be Doctor Ralph A. Kinsella, prominent internist of St. Louis, Missouri. The guests will also include Major C. Elmo Dovell, Chief of the Surgical Service of the Army and Navy General Hospital, of Hot Springs National Park.

The conferenee, as conducted last year, will consist of lectures, demonstrations and clinics on medieal and surgical subjects, the material of which will be so seleeted as to be of espeeial interest to the general practitioner. Members of the staffs will present cases and clinical reports, instead of reading papers. We believe this will be of more benefit to all in attendanee. The lectures and demonstrations will be eoncise, and exaetly to the point. An added feature this year will be a five minute period following eaeh subject presented, for the purpose of general diseussion.

The conference will begin promptly at nine o'clock, on Thursday, October 5th, and will close Thursday evening with an informal dinner at the Arlington Hotel, at which time Doctor Kinsella will present his subject.

No registration fee will be charged.

O. H. King, *Chairman*,
W. W. Chamberlain,
L. G. Martin,
Conference Committee.

Dr. W. H. Bruce of Morrilton has been appointed health officer for Pine Bluff and Jefferson County. He succeeds Dr. A. B. Jemison, who recently was appointed epidemiologist and director of milk and malarial control of the State Health Department. Dr. Bruce has been in charge of the health unit at Morrilton for five years.

The medico-military course of inactive duty training for Medical Department Reserve officers, which has been held at the Mayo Clinic during the past four years, will again be held this year from October 1st to 14th, both dates, inclusive. This inactive duty training will follow the plan so well worked out under the auspices of Colonel George A. Skinner and the military features will be under his personal supervision.

This type of military medical training is now well established and has proved its worth during the past four years. The course offers valuable and interesting training for the Medical Department officers of all the components of our national defense. The staff and faculty of the Mayo Clinic have again placed their unexcelled facilities at the service of their government in the interest of preparedness, and have extended an invitation to all the services to participate.

This short course is equally applicable to general practitioners and specialists. The morning hours are devoted to purely professional subjects selected by the student officers. The afternoon hours pertain solely to medico-military subjects and the evening hours are covered in a lyceum course of general interest.

Application for this course of inactive duty training should be made to the Corps Area Surgeon, Seventh Corps Area, Omaha, Neb. Applications should state the character of the work the candidate desire to follow in the morning hours. All student officers are expected to attend and participate in the afternoon and evening sessions. Each applicant should fully understand that the invitation to accept this course of study without charge is extended by the Mayo Clinic; that the project is without expense to the government; and that one hundred hours' credit will be given those who take and complete the course. While it is desirable to attend the entire course, those whose time will not permit this may join or leave at any time and will receive credit for the hours spent in training. Uniforms are optional.

Resolutions of respect to Dr. J. H. Kennerly, who died May 13th, 1933:

Whereas, the long and useful life of Dr. J. H. Kennerly was terminated May 13, 1933, and, whereas, the Independence County Medical Society deeply mourns his loss and feels that it has been greatly honored by his long and devoted membership and will always remember him as a man of the highest principles, most genial temperament, and unfailing loyalty to our profession:

Be It Resolved, that this society extend its heart-felt sympathy to his bereaved family, and that this resolution be spread upon our minutes and a copy thereof be sent to his family.

(Signed) L. T. Evans,
C. G. Hinkle,
Resolutions Committee appointed by the Independence County Medical Society.

"I MARRIED MY JOB," SAYS WOMAN SCIENTIST-EDITOR

Mrs. Dabney's Husband Is Really Editor of Southern Medical Journal But She Does Most of Work; Being Mother Doesn't Interfere.

Only one woman in Birmingham has such a job as Mrs. M. Y. Dabney's. She glibly taps out scientific words on her typewriter as she writes editorials for the monthly journal of Southern Doctors.

Though her husband, Dr. Dabney, is listed as editor of the "Southern Medical Journal" and she is called assistant editor, he says she does most of the work.

In the mornings and often at other times, she shuts herself in her study, surrounds herself with towers of medical books and turns unwieldly words out of her typewriter.

Yet to most of her neighbors on Cliff Rd., she is known prineipally as the mother of three little girls, and as a tall brunette person who has time for tennis, horsebaek riding and fruit-growing on her Shades mountain farm.

Avoids Interruptions

"Like all busy persons, she has time for everything that she wants to do!" said one of her friends who marveled at her ability to shut herself into a scientifie mood in the midst of her household. The study, where the medieal journal grows, is on the first floor of her home at 3206 Cliff Rd. She tries to avoid interruptions after she shuts the door, but she recognizes the special tapping of her three daughters.

Besides collecting editorial material for each issue. Mrs. Dabney helps in preparing for publication the long scientifie papers which doctors send from all over the South. Once a month the manuscripts, which she has shaped up, are colleeted between greenish-blue covers. And the magazine goes out to members of the second largest general medical organization in the United States. And now she is helping with plans for the next annual meeting of the Southern Medical Association in Richmond, Va., in November.

Mrs. Dabney says that she really married her job. Dr. Dabney was already editor when she married him. And he promptly made her assistant editor.

Scientist Herself

She had been studing seience at Columbia and the University of Miehigan. And while she was in New York she had worked as chemist in the laboratory of the United States Rubber Co. That meant that she had to analyze such rubber objects as heels, rings for fruit jars, gas masks, airplane equipment.

On a visit home, she married, and discovered that she wouldn't have to give up seientific work, after all. When her two older children were babies, she paeked them up, took along a nurse and went to summer sehool at the University of Miehigan. For three other summers, she and the children went back. And thus she managed to get her master of scienee degree in bacteriology and physiological chemistry.

Then she decided she would become a doctor—if she and the ehildren eould go away to school for twelve successive summers. But no medieal school would promise her an M. D. degree unless she would stay in residence for nine-month terms. And she eouldn't leave her home that long at a time.

So she reads medieine instead of practicing it.—*Birmingham Post*, July 22, 1933.

Communications

Dr. Wm. R. Bathurst, July 26, 1933.
Editor,
Arkansas Medieal Society Journal,
Little Roek, Ark.
My dear Dr. Bathurst:

You will find enclosed herewith copies of letters whieh have been prepared by the State Health Offieer and forwarded to all eounty medical societies within the State. Inasmueh as the problems dealt with are of great importance and of general interest to the profession, I am presuming that you will be interested in making mention of them in the columns of the Journal.

Cordially,
Gordon Hastings, M. D.,
Director Rural Sanitation.

Little Rock, Ark., July 10, 1933.

To Members of the County Medical Society:
Attention: The Secretary
Sirs:

You will find attached hereto copy of a communication prepared by this office and forwarded all local registrars in the State. The subject treated involves the complete reporting of births and deaths together with comments on serious financial difficulties encountered in our efforts to compensate them for services rendered. You will immediately apprehend that the tone of the letter connotes sacrifiee on the part of the registrars yet without their continued cooperation one of the most important functions of our State Health machinery will be irreparably damaged. You as physieian ean render a real contribution at this moment of emergency by reporting to your local registrar as promptly as possible all births and deaths occurring in your practiee. I am therefore respectfully soliciting your full and complete support and in return pledging my willingness and extreme desire to eooperate with the physicians in this State. Cordially,

W. B. Grayson,
State Health Officer,
Special Agent, Bureau of the Census.

Little Rock, Ark., July 8, 1933.

To Local Registrars:

As State Health Officer I have conferred with Governor Futrell relative to the possibility of procuring sufficient funds to pay registrars for services to be rendered for the collection of birth and death certificates for the current biennial period, July 1, 1933, to June 30, 1935. The last Legislature failed to make an appropriation to defray the expense of birth and death registration over this period. The Governor immediately recognized the seriousness of failure to appropriate funds for this function and the absolute necessity of procuring complete registration of births and deaths if we are to remain in the U. S. Registration Area. In view of this fact the Governor has authorized me to inform you that he will recommend to the next Legislature, either in *regular* or *extra* session, that adequate funds be provided to take care of this expenditure. This, as you well know, is assurance that funds will be available.

You will recall that warrants issued providing your fees from July 1-December 31, 1932, were impounded by Act 5 of 1933. This law provides that a sinking fund be established from 20 per cent of the General Revenue and laid aside so as to redeem warrants issued and expenses incurred prior to January 10, 1933. The State Debt Board is at this moment attempting to discover a satisfactory solution to this problem and warrants will, in time, be redeemable.

Warrants covering fees for the period January 1-June 30, 1933, are now being prepared and will be redeemed from General Revenue, which should be available immediately upon their issuance.

The complete registration of births and deaths is accepted as one of the most important functions of an efficient health department. In truth, the efficiency of a health agency is often determined by the ability of its Bureau of Vital Statistics to effectively collect birth and death certificates.

I am intensely interested in the continued success of this bureau and it is my sincere wish that this service be not impaired. In view of this we will be compelled to depend on the local registrars for continuation of their fine spirit of cooperation. It is my earnest desire that you serve in the future as diligently, honestly and energetically as you have in the past and thus make your contribution toward the success of this important function. Without this data coming in from the field, the department will be seriously jeopardized, a thing that cannot happen if given your support. I am therefore, appealing to you to aid this office in this moment of distress and pledge to you in return my very best efforts to have you reimbursed for services rendered.

I will be pleased to have you inform me at an early date of your sympathetic understanding of existing conditions and willingness to continue serving in your present capacity.

Cordially,

W. B. Grayson,
Special Agent,
Bureau of the Census.

Little Rock, Ark., July 22, 1933.

Circular Letter 12-J

To Members of County Medical Society:
Attention: The Secretary

Dear Sirs:

I wish to respectfully call your attention to a change in policy as pertains to the examination of certain specimens by the Hygienic laboratory of the State Board of Health. Due to reduced appropriations and inadequacy of personnel attendant thereto, the laboratory will not in the future be permitted to perform urinalyses or differential blood counts. We regret exceedingly of our inability to render this service.

All other services rendered by the laboratory will continue as in the past. As you well know, examinations are made, regardless of financial status of the patient, where serious emergency public health problems exist, such as the prevalence of diphtheria, typhoid, meningitis, examination of specimens for rabies, also private or public water supplies under suspicion. All other services are available for charity practice only.

Our maintenance fund has likewise been substantially lowered, causing us to minimize postage expense. If you will be so kind as to have all licensed physicians within your county notified of this change in practice, we will appreciate the cooperation and courtesy rendered.

Yours very truly,

W. B. Grayson,
State Health Officer.

Obituary

RODMAN, THOMAS N.—Dr. T. N. Rodman of Batesville died July 20, 1933. Aged 65. He was born at Zion, Izard County. He was graduated from the University of Tennessee School of Medicine in 1902, and then located in Newark, Arkansas. Following several years of practice at Newark, he moved to Batesville, where he was associated in the practice of medicine with Dr. L. T. Evans. Dr. Rodman was a former president and secretary of his County Medical Society.

He is survived by his wife, two daughters, Mrs. Merle Younger of Mount Pleasant and Miss Norma Rodman; three sons, Elmer, Dibrell and Tasker of Batesville.

LIPSEY, LEM H.—Dr. L. H. Lipsey of Wynne died July 12, 1933. Aged 66. He was born in Hernando, Mississippi, December 20, 1867. Graduated from the University of Louisville, March 3, 1891.

BARR, AUSTIN FLINT—Dr. A. F. Barr of Cherry Valley died July 3, 1933. Aged 45.

WALL, ENOCH DAVID—Dr. E. D. Wall of Marianna, aged 53, died July 11, 1933. He was the son of Enoch David Wall and Elizabeth Coleman Wall. He was born at Oak Forest, December 28, 1880. Dr. Wall had practiced medicine in Marianna for twenty-one years. For sixteen years he had served as city health officer and was departmental surgeon for the Missouri Pacific Railway Company.

Ranking as captain in the World War, he served as transport surgeon between Hoboken and Liverpool.

In 1905, Dr. Wall married Miss Effie Allison of Marvell. He is survived by his wife, three daughters, Mrs. W. C. Oursler and the Misses Temple and Sarah Hope Wall, and a son, David Wall.

County Societies

YELL-POPE COUNTY

(Reported by Robert Hood, Sec.)

The Yell-Pope County Medical Society met in regular session, June 8, at St. Mary's Hospital, Russellville, at the invitation of Dr. R. L. Smith. A delightful dinner was served under the supervision of Miss Ellen Phillips and her staff of nurses. A very interesting as well as instructive program was given.

Dr. Pat Murphey of Little Rock gave an illustrated lecture on Sciatica. He stressed the differential diagnosis of the disease and promised a favorable prognosis in the uncomplicated cases.

"Cancer of the Skin" was presented by Dr. R. Q. Patterson of Little Rock. The interesting paper was supplemented by lantern slides, illustrating the various types of malignancy, their most frequent location and outcome.

The following physicians were present: Williamson, Chickalah; Wolfermann and H. Moulton, Fort Smith; White, Patterson, Murphey and Saxon, Little Rock; Spillers and Brown, Dover; Yates and Linton, Hector; Hunt and Kolb, Clarksville; Montgomery and Griffin, Atkins; Teeter, Pottsville; Haster and Millard, Dardanelle; Poole and Gillam, Ola; Clement, Rover; Ballinger, Plainview; Robinson, New Blaine; Smith, Paris; Major McCay, R. L. Smith, L. M. Smith, Webb, Gardner, Scarlett, Rye, Campbell, Stanford and Hood, Russellville.

The meeting adjourned to meet the second Thursday in July in Dardanelle.

YELL-POPE COUNTY

(Reported by Robert Hood, Sec.)

The Yell-Pope County Medical Society held its regular monthly meeting at the Ploss Hotel, Dardanelle, July 13.

The following program was given:

"The Progress of the Science of Medicine," by Hon. Steele Hays, Russellville.

"Demonstration of the Injection Method of the Treatment of Varicose Veins," by Dr. D. W. Goldstein, Fort Smith.

On application of the Conway County Medical Society, the Yell-Pope County Medical Society joined with them to form the Tri-County Medical Society.

The meeting adjourned to meet in Russellville, Thursday, August 10.

★ ★ The Physician and N R A ★ ★

Everywhere today men talk about the National Industrial Recovery Act. Questions have poured into the headquarters of the American Medical Association relative to the relationship of the medical profession to the N R A and its stipulations. Probably the most significant of these questions concerns hours of work for physicians and hours of work and salaries to be paid to their assistants and attendants. At present it is safe to say that physicians are exempt, as are other professional men, from hours of work and payment stipulations under the N R A, and that their professional employees, such as laboratory technicians, radiologists, anesthetists and similar professional groups, are not immediately concerned. However, if a physician employs more than two persons as attendants in his office, of the class of clerical employees, accountants, laborers and similar types of help, they do come under the National Recovery Act with a minimum wage and certain maximum hours of work.

The medical profession, as far as concerns its private practice, need have no immediate concern over the stipulations of this act. The legislation is not intended to interfere with the personal relationship between physician and patient, necessary to the best type of medical care. Physicians have never had definite hours of work; they have always been subject to call at any moment for the benefit of their patients. The rights of the sick man are above hours of work or regulations of this character. It is hoped that every physician will enter wholly into the spirit of the National Recovery Act as an ideal, representing the government's point of view as to the principles and motives behind which the entire nation must unite if it is to pull itself out of the slough into which it has fallen.

In his relationship to the hospital, the physician will find himself in a somewhat more complicated situation. Because of the large number of employees involved, hospitals are definitely concerned under this act. A preliminary interview of officers of the American Hospital Association with the Division of Re-employment of the N R A developed several interesting points of view. Apparently voluntary hospitals come under the provisions of the agreement with the possibility that they might be exempted when operated largely as charities incurring deficits in their operation, and also as institutions for the care of emergencies. It was the opinion of officials in Washington that administrative, professional nursing and student staffs, dietitians, technicians and other professional employees do not come under the provisions of the agreement, but that all maids, orderlies, waitresses, laundry workers and others in the lower level of wage earners do come within this classification. As hospitals give twenty-four hour service every day during the entire week, it was pointed out to General Hammond that it would work a hardship on the hospitals to attempt to apply a forty-hour week for this type of personnel. Nevertheless, he expressed the opinion that seven days a week and eight hours a day constituted too many hours of employment and that even though the majority of such employees seldom put in a total of fifty-six hours, special consideration would have to be given to the question. This matter is being carried further by the American Hospital Association.

This act concerns the American Medical Association also as an employer in its headquarters office of some five hundred people. The headquarters office, by order of the Board of Trustees, entered promptly into the spirit of the act so far as concerns payment of employees in the lower wage levels and hours of work.

Again The Journal would urge physicians in all their relationships to enter fully into the spirit of the legislation, recognizing its experimental character but realizing that the times demand experimentation by the trial and error method if a solution is to be found for what has seemed in the past a most difficult problem.—*Jour. A. M. A., Aug.* 12, 1933.

Book Reviews

Surgical Clinics of North America. (Issued serially, one number every other month.) Volume II, No. 6 (Philadelphia Number—December, 1931) 309 pages with 87 illustrations. Per Clinic Year (February, 1931 to December, 1931.) Paper, $12.00; Cloth, $16.00, net. Published by W. B. Saunders Company, Philadelphia.

Twenty-two clinics are shown in this number. The first is Bronchoscopic and General Surgical Clinic of Drs. Chevalier Jackson and W. Wayne Babcock, Temple University Hospital. Another one that deserves mention is that of Drs. Eliason and Ebeling on "Modern Tendencies in the Treatment of Fractures."

Dietetics for the Clinician. By Milton Arlanden Bridges, B. S., M. D., F. A. C. P., Associate in Medicine at the New York Post-Graduate Medical School, Columbia University, New York. In collaboration with Ruth Lothlop Gallup, Dietition. Foreword by Herman O. Mosenthal, A. B., M. D., Director of Medicine at the New York Post-Graduate Medical School, Columbia University, New York. Price, $6.50, net. Octavo. 666 pages. Published by Lea & Febiger, Philadelphia.

This book is designed to fill the great need for a work on dietary management which is readily understandable and from which practice can be immediately instituted. It is a handbook for the worker in the field of medicine who does not have the more detailed treatises at his immediate disposal. The author has reviewed the entire literature of the field at large and has produced an assimilation of the various dietetic tables. The material here offered is not only physiologically sound and essentially practical, but has been adjusted to the physician and his patient.

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Original Articles

BIRTH INJURIES*

S. B. HINKLE, M. D., Little Rock

Much has been said in the professional and lay press during the past few years, about the errors committed by members of our profession in the handling of the maternity case. Daring statements have been made, and directed at the profession at large. We are being charged, more and more, with the miseries and shortcomings of the race. Deficiencies, such as iratic body development, backwardness in school, truancy, and juvenile criminality, which used to be charged to bad inheritance, poverty, and environment, are now being charged to birth injuries. The failures of gynic health, with its dire effect upon the economic, social, and domestic affairs of the nation, are being charged to faulty parturition. From some sources we are charged with over zeal, from others, with ignorance, indifference, and neglect.

The picture is over painted. But birth injuries do occur; have since the beginning of the race, and will continue to occur, in spite of our best efforts to prevent them; will continue to cause suffering, deficiencies, and ill health, in spite of our efforts to cure—but they occur too frequently, and because we have demanded the right to guide our women through their pregnancies, and attend their labors, we must accept the responsibility for the results, and by scientifically and carefully meeting that responsibility, absolve ourselves from blame.

Birth injuries of any considerable importance occur at, or near, the end of the second stage of labor. In the baby they are, injuries to the brain, spinal cord and brachial nerves, with the very infrequent fractures or dislocations of bone. They are caused by difficult labors, and are nearly always associated with attempts to extract, or forcefully expel by oxytocics.

Injuries to the mother are, lacerations and bruising of the soft tissues, loss of blood, and infection with pathogenic bacteria. These injuries grade from simple first degree lacerations of the perineum, to the deeper tears, involving the rectum and bladder, the body of the uterus, and adnexal structures—are caused at the same time, and in the same way.

Then, in order to reduce birth injuries, we must turn our attention to the reduction of traumatic births.

In order to make effective our efforts to reduce maternal and fetal morbidity, a working agreement must exist between the doctor and his practice. The public should expect of him a clear understanding of maternity problems, and give him an opportunity to meet them. He must accept the challenge, and make good.

It has been my experience, in the conduct of a community practice of several years, that a large percentage of my patients meet my ideal when they first apply for my services. That is, they are women of reasonable childbearing age, of satisfactory physical and mental development, have a reasonably clear understanding of the responsibilities of motherhood, and are relatively free from damaging habits and disease. These patients follow our directions with confidence, approach their labors without fear, and complete them without difficulty. The remainder, however, depart from this ideal, and their departure grades from threats of minor difficulties, through anxieties and fears, to the utterly unfit. Many of these patients are amenable to treatment, and with careful, and patient study, we are able to cure their defects, allay their fears, and conduct them to, and through, normal labors. But we must begin in time. The diseased, anemic, atonic, constipated patient may be made an ideal patient at term, if we begin early and work faithfully, but

*Read before the Fifty-eighth Annual Session of the Arkansas Medical Society, held in Hot Springs National Park, May 2, 3, 4, 1933.

it cannot be done in the last few weeks of pregnancy.

The remainder are in a class alone. They are the diseased, the mal-developed, the feeble-minded, and the insane. Their defects cannot be removed. These should be treated by early terminations of pregnancy, major operatives deliveries when demanded, or the consequences aeeepted as inevitable. For these failures we should not be blamed.

At, or near term the size and presentation of the child, and the eapacity of the pelvis to aceommodate its passage, should be satisfactorily estimated, and a method of delivery determined. It goes without saying that the oversized child is a serious threat both to himself and his mother. Some presentations are impossible of delivery and hard to correct. The pelvis may be entirely or relatively inadequate. These patients should be given the advantage of operative delivery, while they are yet well and well nourished, and before they are diseouraged, traumatized, and exhausted.

It is my opinion, however, that the pelvis is eharged with too many of our difficulties, and should seldomly, if ever, be a serious threat to the patient, who has given us an opportunity for study and classification.

1. The deformed pelvis is self-evident, and shows plainly in contours, attitude and gaits.

2. The diseased pelvis is found only in the diseased patient, discomfort and disability are always evident.

3. The eretin pelvis is the property of the eretin, and is no less evident in the pelvis than in other parts of the body.

4. The generally small pelvis, in the generally small patient, is praetieally never a dangerous one, especially if she shows evidence of complete maturity, body lines are graeeful, and the baby is not too large.

The funnel pelvis is the one most apt to give us trouble, because it is the one most frequently overlooked, but if it is dangerously funneled, there are always other stigmata of masculinity. They are usually outstanding.

Unreasonable as this statement may seem, it is my impression that many of our difficulties come in response to our own invitation. We have learned to induce labor by so-called simple means, to hurry it with drugs and manual dilatation, and terminate it with oxytocies or extractions. Induced labors are seldom normal; oxytocics threaten lacerations of the body of the uterus, as well as the tissues below, the intensive and prolonged eontraction materially reduces the baby's oxygeu supply, and by pressure of the head against the unyielding cervix, or the bony pelvis, produces more or less eoneussion of the brain. Manual dilatation of the partially effaced cervix is not only unscientific but damaging in the extreme. The tissues are bruised and laeerated, the patient is shoeked—infection is invited.

Extraction of the head through any considerable portion of the bony pelvis is infrequently indieated and regardless of means used, or how skillfully done, it is extremely dangerous to the mother and baby. The frail covering of the blood sinuses can be easily broken by rapid changes of skull contours, and they are seldomly damaged by slow and easy moulding.

Now, if these statements are true, and examination of a few of the brains of babies, who have died of asphyxia and convulsions, will convinee you that they are, the treatment is apparent. Prevent their occurrenee by lengthening, rather than shortening, labor. In the primipara, nature requires a long time to completely effaee and dilate the cervix. Much of this is done with little discomfort to the patient, and if properly advised, she will usually approaeh the termination of that stage of labor before calling for help. At this time, a carefully conducted analgesia will encourage a smooth and complete dilatation of the cervix without lacerations or bruising, will permit a slow moulding of the head to the contours of the pelvis, and will insure a slow, safe progress through it. When the head is certainly through the bony pelvis and the perineum is considerably bulged, it is my praetice to do a medio-lateral episiotomy, suffieiently deep to prevent laceration, and allow the head to be born, or I direet it through very gently with the low foreeps. There is no damage to the soft tissues of the mother, the episiotomy wound heals quickly and completely, the perineum does not sag—the baby is never injured.

The treatment of birth injuries is not partieularly the purpose of this paper, but its recognition and admission is one of its main objects. For upon this depends, not only the active treatment, but what is more important, its prophylaxis. In the slow progressive labor,

where no manipulation has been done, the cervix is almost never damaged to an extent demanding treatment, and except in the presence of hemorrhage, it should not be looked for. Not so with the vaginal and perineal structures. Extensive lacerations sometimes occur with the simplest of labors, and should always be looked for and repaired. Birth injuries, in the child, are sometimes hard to diagnose in the beginning, but should always be suspected in rapid deliveries, in all breech presentations, in all unfavorable presentations of the head, and especially where manipulation or extraction has been required. Regardless of these conditions, birth injuries should be suspected in all cases of immediate or secondary asphyxias out of proportion to the narcotics or anesthesia used. In cases of cynasis or palor, spaciticity or flacidity, in fact, in all cases where the child appears or behaves in any way unusual. The treatment depends upon the location and extent of the injury, but regardless of treatment, watchfulness, and gentleness should be our paramount aim —subcutaneous injection of parental blood will tend to slow hemorrhage, release of tension by spinal or cisternal puncture is of benefit in indicated cases. Pediatric and orthopedic treatment should be available and freely used.

In summarizing I should like to impress:

1. The importance of obstetrical injuries. If mass bleedings produce spectacular asphyxias, convulsions and death, or spastic paralysis, that make incurable cripples of the child, it should require only a slight stretch of imagination to visualize impairment of mind, and perversion of trends in the less seriously damaged.

2. That birth injuries are the direct result of an abnormal second stage, and that labors are seldom dangerously abnormal in patients who have had proper prenatal care, and who are in good health, and have been properly classified. That they occur more frequently when the labor is hastened artificially, and most frequently when labor is induced.

DISCUSSION

DR. DON SMITH, Hope: Dr. Hinkle wrote me that he was going to write a paper on birth injuries and asked me to discuss it. I shall not attempt to discuss injuries to the mother. From his subject as announced in the Journal I was not sure just what phase of the subject he treat principally in his paper. I am going to discuss birth injuries to the baby and I want my friend, Dr. Munn, of El Dorado, who is probably more familiar with the injuries to the mother, to discuss that feature of it, or any other that he may want to discuss.

One of the things that you will run up against in your practice occasionally is a tumor under the scalp, known as cephalhematoma. That is a condition that will give the parents a great deal of worry. I have had several of these cases myself, and I will not attempt to talk about any that I haven't had in my own practice. I remember one case in a wealthy family in my town that gave the parents very much worry. You have to do a lot of talking to make them believe that this is not serious. They are afraid that it is some brain injury and I have known of those cases to be diagnosed as such. You run your finger around it and feel what seems to be a well-defined cavity that opens into the brain. If you let the tumor alone in a few weeks it will have been completely absorbed and there will be no damage to the child. If you want to do it, you can open it with a knife and let out the fluid and it will get well provided you don't get any infection, but the danger of infection is so great that such a procedure is not advisable. As I said, I have had several of these in my own practice and have known it to occur in the practice of some of my colleagues.

Another injury that you will run across occasionally that will give the parents much concern is a hemotoma situated in the sternocleidomastoid muscle. This is a rounded tumor varying in size. If it is small, it will not do the baby any harm. Let it alone and it will absorb. I have had one of these cases in my own practice. I advised them to let it alone. I persuaded them to let it alone and the thing was absorbed and there was no damage to the child. I notice that Moss, in his work on Diseases of Children, and maybe others, say that frequently these things are large, and later, as they absorb and scar tissue forms, there is danger of the scar tissue pulling the head of the child over to one side. There is nothing to do for it except to massage it, if you know how to give an intelligent massage. I must say that I don't. The only one I ever ran across absorbed without any help from me, and the child made an uneventful recovery. That is one of the rare injuries you will run across. It is of no special significance unless it should be large. Those are two of the injuries to the head.

There is another injury that occurs, that of facial paralysis. That is due to the injury to the facial nerve just where it comes out from the brain through the styloid mastoid foramen, caused by pressure either from the forceps or perhaps from pressure in a very tedious labor where the head is really too large for the outlet. I think all of you have run across such cases.

I delivered one Monday morning a week ago that weighed 12 lbs. Fortunately I got it through without any trouble. Those things are serious. If there is enough injury done to the nerve, you will have a paralysis that will probably last through life. If the injury is slight, there will be a paralysis for a short time and then a complete recovery.

Now, another paralysis is one located in the arm. That can be and is caused, I think, in two ways; in injury to the brachial plexus brought about by the obstetrician getting in a hurry and hooking his finger perhaps in the axilla and making traction, or in one of those tedious labors where the child before birth becomes asphyxiated.

As a result of this asphyxiation, the muscles, tendons and everything around the joint becomes loose and the pains will stretch the arm and the muscles and tissues and injure the nerve. I have had one such case. I had hooked my finger in the axilla and made traction because there was some delay to the shoulder being born. This case made an uneventful recovery. I forgot to mention one case I had of facial paralysis from a slight injury, and the child made an uneventful recovery.

Now, gentlemen, there is another injury which happened to a patient of mine. I was called to see a woman in labor and I examined her and found a hand presented. It was not a shoulder presentation. The head was presented and the hand down to the side like this, or a little beyond that. I made an examination and found this condition and endeavored to replace that hand. The woman had a pain and I thought the head might scoot by and relieve the hand pressure. Well, that is just exactly what didn't happen. I didn't examine the woman again for perhaps an hour and a half. The labor was very tedious. By the way, it was a premature baby, about seven months. About an hour and a half or two hours later I examined her and found the arm from the elbow down to the fingers swollen very thick. Afraid of gangrene from the pressure, I made a hasty delivery, and the arm was as black as it could be. Fortunately for me, this baby died or an amputation of the forearm would have been necessary above the elbow, because it was undoubtedly gangrenous. It lived a few hours. With all the heat packs and things I put upon it to restore the circulation, it was absolutely useless. Fortunately for me and for the baby, too, I think, the child didn't live.

Now, we come to an injury that is a tragedy; I mean, injuries to the brain. All of us who have done obstetrics have had an injury of this sort. I have had some of these cases. The only one I remember that lived was in a perfectly normal labor. There was nothing used, no pituitrin, not even quinine or any of the old oxytocics. In the country there is this practice, and it is a bad one: you deliver the child and perhaps don't see the patient any more. Perhaps they live a good piece from your home, and in the old days we had a horse and buggy and it took us quite a while to make those trips. We would make one trip, deliver the baby and give instructions and trust to them to let us know about the condition. Three or four months after this happened, I happened to be called down in that neighborhood or perhaps into that family. I found this child the victim of a complete spastic paraplegia. I was a little ignorant of the child's condition. At that time there was a little something in the textbooks about this brain injury, and a little talk about it, but it took me, I am ashamed to tell you, months after this happened, after reading and thinking about it, to determine what was the trouble. I should have known immediately what was the matter but I didn't. It was too late then. The child was a complete idiot; no mind at all, and with a complete paraplegia.

Now, if I had a case in which I could make a diagnosis of brain injury, I would certainly suggest immediately giving whole blood from the mother intramuscularly because that seems to help control hemorrhage, and I would also advise spinal puncture; and, if I had a daring surgeon to help me out, if that didn't seem to give relief, and that will sometimes prevent convulsions, I would certainly have the fluid drawn from the spinal canal or higher up, if I could get some man who had nerve enough to undertake it. Withdrawing the fluid from the spinal canal isn't a very difficult matter. The other isn't either, if you know where to go in. I would certainly advise that, although I think all you would accomplish by it would be to control the convulsions, because I doubt seriously, after the injury has been done, that even that will restore the child to health.

I have enjoyed this paper very much of Dr. Hinkle's and I think it was a compliment to me for him to ask me to discuss it. I thank you very much.

DR. W. A. FOWLER, Fayetteville: I am very glad to have this opportunity of making my maiden appearance before this State association in the discussion of this excellent paper. I am very glad to have enjoyed, too, the interesting paper that my friend Dr. Turner gave you here. I was in Oklahoma City for a good many years and had the privilege of being connected with the State University medical school there in the department of obstetrics.

This paper, in my opinion, is a very excellent presentation of the subject. It is very temperate. It is certainly very kind towards any one who might have been mistaken in his conception of the management of labor. I think that our high prevalence of birth injuries is due in a very large measure to our impatience as a nation. We are probably the most impatient people in the world. We are always in a hurry. We may not know what we are going to do when we get there but yet we are in a hurry. That is a disastrous thing in obstetrics. Birth injuries may happen, as has been said, in perfectly normal cases, in which we have used every precaution in the world to prevent them, but let's be honest also and say that the vast majority of them are due to too much force unwisely applied. Now, the physiology of labor is something we ought to study more. The forces which nature provides for the birth of the child are powerful, of course, but they are very gentle, they are very evenly applied, and not very often will they produce serious injury to either the mother or the baby.

A very frequent birth injury to the mother is laceration of the cervix. Laceration of the cervix comes usually because we interfere with the physiology in the first stage of labor. We rupture the bag of water; we use pituitrin and even apply forceps. A completely dilated cervix is a cervix that is dilated enough to permit the presenting part to pass through and, if it is dilated enough to permit the presenting part to pass through, we may be sure that the presenting part will pass through so that a completely dilated cervix can never be felt by the examining finger. Don't let the patient bear down; don't give pituitrin; don't rupture the bag of waters; don't give any other oxytocic in the first stage of labor. That is a rule you will never have to vary from. Then, in the second stage we are impatient with the forces of nature, so we rig up sheets and tell patients to pull, and we put on the forceps and we give pituitrin. Now, that isn't physiological; we should not do that.

I am not quite as temperate as our essayist. I greatly appreciate his kind attitude. And, of course we are all trying to work this out the best we can. I think that these rules should guide us. In the first stage of labor, if there is an abnormal position or presentation, we should correct

it, if we can. We should not interfere at all in the first stage except to see that the patient gets plenty of nourishment, that she is relieved from nervousness and from pain if those symptoms are troublesome. Then we should simply wait until the first stage of labor is completed. In the second stage again we should generally wait.

I just want to say one thing, as a general summary and that is, for the interest of the mother and the baby, let's not be in a big hurry, and we will prevent more birth injuries than in any other way. Now, as for the injuries to the baby, most of them, unless we are very watchful, we will not suspect. I am sure we all have birth injuries to the brain of the baby. I am sure in my own mind that more than half the babies that die during birth or soon after birth have injuries to the brain as autopsies have shown in studied cases. Of those that die, about half of them are delivered breech first. Half of the head cases are forceps cases. In other words, birth injuries are about ten times as frequent in cases that have had the forceps used as in the general run of cases, and about ten times as frequent in breech presentations as in the general run of cases. So, we should stay away from these things unless there is a very clear-cut indication. When we have birth injuries, I think the treatment outlined is excellent, giving the mother's blood. It is easy to do, under the skin of the baby's back and, if we have symptoms of cerebral congestion of any kind, we can do a spinal puncture and, if the spinal fluid is blood-stained, we can repeat until it is clear and in that way, I think we can prevent more injuries that cause morbidity later on.

DR. E. J. MUNN, El Dorado: I enjoyed very much the essayist's paper on birth injuries. I have also enjoyed the discussion by Dr. Don Smith in bringing out definite birth injuries and discussing them. I could not attempt to go into a further explanation of these because I know so well that Dr. Hinkle tutors medical students, I being one of those tutored by him, and I am glad to see that he hasn't let up one bit on the things that he emphasizes, and has even gone further. When I read the subject Birth Injuries, I wondered how he was going to separate them from the obstetrical patient and exclude injuries to the mother, but he kept it so closely correlated and defined that we could see that he had that in mind. I am quite sure that he still stresses those injuries to the mother as he used to.

The challenge has been made to us for the care of expectant mothers, but it has been my experience with the younger expectant mothers that the majority of them make ideal patients, and I have observed that, in a number of cases where they were not physically fit, by this close contact in which they stay with their doctor, a number of them have improved, going through the nine months of pregnancy, and at the time of delivery and after delivery they are even then in better physical condition than they were when they first came to us. That is one of the things that is to me encouraging. And the majority of us still have to take care of these patients, even though we may get into such conditions where we see it is a specialty unto itself. We should be glad to render this duty. Such challenge is upon us and we must accept it; and in the duty of caring for them, we will be enabled to render a service that is going to be an economic saving to the obstetrician, to the mothers, and to more useful citizens in later years. There has been a great deal of work in a health way that has enabled us to do this more easily; that is, by the ordinary health nursing in a number of instances. We appreciate that. And I think that the good derived from it is just beginning. It is too bad that a number of them haven't to this time awakened to the fact of the importance of obstetrical care. As has been brought out the second stage of labor is the dangerous stage from the standpoint of the infant. It is equally the dangerous stage to the mother. And I think it is by our new method of taking care of these patients, by closer observation of the patients and staying with them more, that we are enabled to be of assistance to the patient at this stage.

The exhausted patient, which is one of the means of making the second stage of labor difficult, is one in which we are sometimes called. I recall a patient who was approaching the second stage but, because of a lack of means, a doctor was not called. Some of the neighbors, expecting it to be a normal case, had tried to assist the patient by every means possible, but it was a case of exhausted patient and exhausted health. The labor was normal except that it was a long protracted labor. The patient immediately after having had delivery of the placenta, having received a dose of pituitrin, there was a tendency towards relaxation. Preparation was made for a hypodermic of ergotol and just at the time that the hypodermic was being given a profuse hemorrhage started. And I think that is one of the instances in which we have to fear hemorrhage, in the exhausted patient. One other instance that I have experienced is in the anemic patient with malaria, as I have found in a number of instances.

Since a challenge of this obstetrical care and the care of the infant and the mother has been upon us, I know of no better way but for us to accept this challenge and to do it, so that criticism will not fall upon us in the way that it was described in the essayist's paper, and that is to spend more time and observe our patients closer.

DR. E. H. WHITE, Little Rock: Being associated with Dr. Hinkle very closely, I am naturally in sympathy with what he has presented here today. However, I want to take this opportunity to challenge the fact that everybody wants to put the birth injuries on the obstetrician. I don't believe that is a just accusation. For instance, if you use forceps in a legitimate way, you do it for the benefit of the patient or the baby when it is in distress. Many times when we get into a labor case we know we are going to have trouble where the pelvis is deformed and the arch is very narrow. The only way we can get by with this situation, is by episiotomy or perineotomy, thus getting the rectum out of the way and helping the baby through. The baby will come through by itself if forceps are not applied, but the perineum will be torn into the sphincter, and we know the baby is going to suffer injury in the meantime, therefore, we give assistance. If we get an injury one has the tendency to lay the blame on the obstetrician, but the obstetrician knows before he starts that the outcome may not be what he desires, but better than if let alone.

We know in the first stage of labor that the baby is floating in a fluid and that if you give a little oxytocic substance, that the pressure is equal in all directions and that the baby is not in distress. But just as soon as the membranes

are ruptured and the fluid is gone, we know the pressure then changes and that the force of uterine contractions is along the vertebral column of the baby. It is in the second stage of labor that we obstetricians object seriously to the use of pituitrin. Let the patient take her time. Watch the baby's heart every fifteen minutes and see what it is doing, and don't force it through. You must have respect for the cervix. You cannot work successfully through the cervix until you have a full dilatation. If you see that the heart is going all right and everything is all right, give the patient more time.

Now, as to the treatment of deliveries, one thing I do urge in obstetrical practice is not to try to do too many things at once. In applying forceps, if you are going to rotate, rotate and don't give traction, and, after you have the baby in the right position then apply traction, and take time. After the baby is delivered, if it is hard and troublesome delivery, don't wait until the baby shows signs or symptoms. Give 20 to 30 c. c. of whole blood intramuscularly at once to shorten clotting time. Don't wait until your symptoms develop. With obstetricians, one of the things that bothers us is intracranial hemorrhage. We like to put our finger on the fontanelle and see it bulging or not bulging.

Now, gentlemen, the neurology of the baby is entirely different from that of the adult. We get fooled many times. The bulging of the fontanelle doesn't occur unless the blood is above the tentorium. If the blood is above the tentorial membrane and up over the fore brain, the respiration and your heart rate very seldom change. But if it is below, you get a slowing of the heart rate and an increase in the rate of the respiration. If it is below the tentorium, it is well to do a lumbar puncture to relieve the pressure and you often get marked results. When you do a lumbar puncture in the first two or three days, oftentimes you will get blood in the spinal fluid. Frequently, we do not know whether that is due to the needle entering the blood vessel before entering the canal or whether it is blood with spinal fluid. In normal deliveries, without the use of forceps, without the use of drugs, when you do a lumbar puncture you will find fifty per cent of the spinal fluid containing blood in it.

So, I really feel that you can't accuse the obstetrician, if he uses his technic according to the requirements and specifications, for all of these birth injuries. We know birth injuries do occur in spontaneous labor.

THE PRESENT STATUS AND FUTURE POSSIBILITIES OF ELECTRO-SURGERY*

J. A. Foltz, M. D., Fort Smith

If one would go back some five or six hundred years and read the history of the development of surgery from that time to the present he would find that not only would he acquire a great deal in useful information but that the story, may I not be permitted to call it drama, would be far more interesting than the majority of novels.

Since the middle of the 15th century when Ambrose Pare lifted surgery from the domain of the barber and by his high social rank as well as his strong personality and his extensive battlefield experience placed it upon a dignified plain among the respected professions to the present time surgery has made prodigious strides of progress. Following Pare some 200 years came John Hunter who was the first to bring out the laboratory slogan, "Don't think, try," or in other words the principle of trial and error. Then came McDowell whose work in the face of tremendous difficulties kept the star of achievement ever bright until the advent of anesthesia by inhalation opened up undreamed of surgical possibilities. Then came the rapid development of celular pathology under Virchow. Then bacteriology which through the influence of Pastuer and Lister made modern antiseptic and aseptic surgery possible. Then followed the development of local and spinal anesthesia making it possible to set a broken arm or remove a growth while the patient joined in the conversation as an interested spectator to his own reconstruction. Next to quote from Howard A. Kelly:

"Another momentum of the highest import arrived with the X-ray in surgical diagnosis and later in the treatment of surgical lesions. Radium followed, opening up a yet larger field of ray therapy in surgical affections, extending its beneficenees to many conditions beyond the reach of surgery; this now after some twenty-five years' experience is counted a coadjustor of inestimable value in a vast repertoire of diseases medical and surgical in which, even though supplemented by X-ray, it could not be replaced. Nor does this complete the tale, for the next arrival, still on the threshold, is electrosurgery, a newcomer now rapidly enlarging her domain and seeking her final adjustments in the family. Novel as is the realm and indeterminate, electrosurgery opens up a vista, we believe, destined in no small measure to replace scalpel, ligature and hand contacts with wounds, as well as notably to pare down the number of those listed as the "inoperables" by skilled surgeons. One of the important questions awaiting settlement is whether this agent owes its potency exclusively to the heat developed

*Read before the Fifty-eighth Annual Session of the Arkansas Medical Society, held in Hot Springs National Park, May 2, 3, 4, 1933.

within the tissues about the active electrode, or whether the current has some specific biophysical quality by which it may affect the tissues of a near-at-hand lesions without perceptible direct treatment."

About three years ago I became interested in electrosurgery through the influence of a friend. At first limiting its application to such simple things as erosions of the cervix, epitheliomas, papillomas, various kinds of moles, etc. The wonderful simplicity, the remarkable perfection of the hemostasis and the rapid healing led me to try it out in other fields such as removal of large carbuncles, amputations of the breast, Bartholin's gland cyst dissections and allied conditions.

The literature of this subject is rather scarce. The most pretentious contribution being a work on Electrosurgery complied by Howard A. Kelly and Grant E. Ward and published in 1932. To those interested in this subject they will find this book treats the subject quite thoroughly; however, it is only through the general use of electrosurgery by the surgeons throughout the country at large that its development must hope to be accomplished. The advantages claimed for it by those who have written on the subject and those which I have found in my limited personal experience are first, the hemostasis is almost perfect, it being possible to do a radical amputation of the breast with the use of as few as a half dozen ligatures and it is the opinion of such men as Ward and Kelly, that eventually it will be possible by this method to do such ordinarily bloody operations as radical amputation of the breast and thyrodectomies without the use of a single ligature. I may say in this connection that I have removed a larger part of a rather large breast down to the aponeurosis of the pectoralis major muscle with the use of only four hemostats and without the use of a single ligature. I have removed a carbuncle from the back which measured twelve and one-half centimeters in circumference and which when the crater was thoroughly cleaned out, was three centimeters deep without the loss of as much as 15 cc. of blood and without the application of a single ligature, and several other similar procedures. I very recently assisted Dr. I. Fulton Jones of Fort Smith, Arkansas, in the removal of an exceptionally large gastric ulcer being 5 centimeters long by 2 centimeters wide without the use of any clamps and I think I may truthfully say, practically bloodlessly. I think we only used four ligatures in this procedure.

In the case of the breast amputation, the wound was closed by suture exactly the same as when done with the scalpel and we got complete and perfect primary union. In the case of the carbuncle we of course left the wound open and packed. The second advantage is that when operating for the removal of tumors where malignancy is suspected or known to exist we may do a bold and complete dissection without the fear of spilling the cancer cells because it is estimated that there is a destruction of the cells to the extent of 1/10th of a millimeter on either side of the active electrode which is sufficient to seal the mouths of the lymphatics as well as those of the small blood vessels but not sufficient destruction to prevent primary union. The third great advantage is that the electric knife carries with it, its own antisepsis. Fourth, when it is desirable to leave a wound open for healing by granulation you can by means of the hot sparks leave a thoroughly sterile and completely dry surface that will not later ooze. Fifth, in such operations as the removal of cysts of various kinds when it is desirable to destroy the cyst wall without destroying adjacent tissue, this may be done completely, accurately, aseptically and bloodlessly, by electrosurgery. The bloodlessness of the electric knife has a twofold advantage. One, the conservation of blood and second the fact that a bloodless field is always a pride and a joy to work in. As has been said before, electrosurgery is practically in its infancy but it is already a lusty and rapidly growing infant. Its possibilities are almost limitless. In a recent article in a Southern Medical Journal, Dr. Ernest Sachs of St. Louis, Missouri, gives it as his opinion that electrosurgery is destined to revolutionize the technic of brain surgery all over the world. He further states that he is today successfully removing tumors of the brain under electrosurgery which he did not attempt and has never been able to successfully accomplish by any other method. He concludes his paper with this statement: "Electrosurgery in my opinion, is the most important technical advance in neurosurgery that we have had in years. It has made it possible to attack and remove tumors that formerly I would not have dared attempt to remove, and

it has made all removals of tumors easier." It has already sounded the death knell of the classical prostatectomies and in hospitals properly equipped to do trans-urethreal resections by the electric unit, the classical prostatectomy is almost obsolete. It is possible that its use will revolutionize the present technic of antiseptic surgery but for the present it is advisable for the surgeon to use the same antiseptic technic as with the scalpel. I have had a few slides made showing the aetive electrodes with which I have had personal experience, also some slides showing recent improvements in the radio knife, with them I have had no experience, also I am showing a few slides which illustrate the method of securing hemostasis. All of these methods I have personally used. The plates however were copied from illustrations in Kelly and Wards work on Electrosurgery.

DISCUSSION

DR. E. H. HUNT, Clarksville: I think the doctor is doing a wonderful lot of good in presenting this paper at this time. Most of us haven't the finances to get one of these instruments. I have seen the doctor use this instrument several times and I have often wondered how he got such an elaborate instrument as he has. But it is the newest and the best thing that has been given to the medical profession. Each time I have seen the doctor use this instrument, I have had a feeling of regret because I couldn't afford one. The way this coagulates the blood is all but uncanny. I enjoyed the paper very much.

DR. W. F. SMITH, Little Rock: For the past three years it has been my privilege to have a radio-electric cautery in the hospital and we do not feel that we could do as good work as we are doing without it. We have used it in breast amputaticns, and in opening abscesses and carbuncles. We have made incisions in appendectomies and in herniotomies, and we have these incisions often followed by primary union. We sent sections of skin to our laboratory that had been cut with the ordinary knife and also cut by the radio-electric cautery and there was no searing, and there was primary union as I have stated in all cases where you would expect to get it. I think this as a great advance in the treatment of certain cases and I want to commend Dr. Foltz for his work along this line.

DR. FOLTZ, in closing: If there be those here who doubt that electrosurgery has advantages that no other method in the world has, aside from those which I outlined to you, I beg to call your attention to the most extraordinary and unusual discussion by Dr. Earl Hunt. This is the first time in the history of the Arkansas Medical Society that Dr. Hunt has ever discussed a paper perfectly free from obscenity and vulgarity. Any subject which can bring forth such results as those entitles it to your most respectful consideration.

Now, let me say, seriously, that I want to thank Dr. Smith for bringing out one point which, perhaps, I did not bring out as clearly as I should, and that is that you can get and do get primary union after these operations. It has practically been demonstrated that you do that and theoretically there is no reason why you should not do it because your destruction of tissue as proven by the microscope on either side of your electrode to be less than one-tenth of a millimeter, which is sufficient to block your lymphatics and sufficient to control your bleeding and at the same time is not sufficient to produce enough necrosis or destruction of tissue to prevent union by primary intention.

Personal and News Items

MARRIAGE—Dr. Allyn R. Power of Hot Springs and Miss Lillion Grasty of Benton, July 1 1933.

Dr. R. Q. Patterson of Little Rock has been appointed professor of dermatology of the University of Arkansas Medical School to succeed the late Dr. W. R. Bathurst by Dr. Frank Vinsonhaler, dean of the school. Dr. Patterson formerly was professor of clinical dermatology of the University of Arkansas Medical School.

Dr. Arthur M. Gibbs, director of the Ashley County Health Unit at Hamburg, has been awarded a fellowship by the Rockefeller Foundation to study at Johns Hopkins School of Hygiene and Public Health.

At a called meeting of the Council of the Arkansas Medical Society, Dr. W. R. Brooksher was elected secretary and editor to fulfill the unexpired term of the late Dr. Wm. R. Bathurst.

TENTH COUNCILOR DISTRICT MEDICAL SOCIETY MEET

The Tenth Councilor District Medical Society held its annual meeting in Fayetteville, September 12, 1933. The program opened at 8:00 a. m. with operative clinics. At 11:15 the members visited the United States Veterans' Hospital, returning to the Washington Hotel for luncheon. Dr. A. M. Harding, director of the General Extension Service of the University of Arkansas was the speaker at luncheon. Speakers on the afternoon program were: Dr. L. J. Kosminsky, Texarkana, President of the Arkansas Medical Society, and Dr. Joseph W. Larimore, St. Louis. Officers elected for the ensuing year are: President, Dr. Allan Gilbert, Fayetteville; vice-president, Dr. Clyde McNeil, Rogers; secretary-treasurer, Dr. I. F. Jones, Fort Smith.

THE JOURNAL

OF THE

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W. R. BROOKSHER, Editor

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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Obituary

DR. WILLIAM RAY BATHURST, Secretary of the Arkansas Medical Society and Editor of the Journal for many years, passed away while sleeping the night of August 31, 1933. At the time of his death, this issue of the Journal was partly prepared for publication. The October, 1933, issue will contain the complete obituary and, as a mark of affection and esteem, will be dedicated to his memory by the Arkansas Medical Society.

Editorial

It is with humility and with a realization of the difficulty in following the steps of our beloved Secretary and Editor, the late William R. Bathurst, that we assume his office. His office it is indeed; intimately connected with his professional life for many years, years in which The Arkansas Medical Society has made its greatest strides; the office to which he gave countless hours of unselfish toil with all the good cheer he so abundantly possessed. It would be effrontery to aspire to the standards set by him through these years. These standards can serve us but as an inspiration. A great part of the growth of this society, its progress and its accomplishments, is due to the diligent, self-sacrificing labor of that quiet, unassuming man—our Secretary and Editor. Loved by the entire society, a true friend to those who were so fortunate as to have this relationship with him, a genial associate to all others, an altruistic leader in all projects for the good of this society, his city, state and nation; we now realize how much he meant to all of us, how impossible it is to replace his counsel and sympathetic spirit. He has left us a society immeasurably better for his services, one which he would have carry on to even higher achievements and to continue to grow in helpfulness to one another and to humanity. Such would be his desire. To the conscientious furtherance of these aims, we humbly pledge our most sincere efforts.

W. R. Brooksher.

RESOLUTIONS

Resolutions of respect to Dr. T. N. Rodman, who died July 20, 1933:

Dr. T. N. Rodman of Batesville died July 20, 1933. He was graduated from the University of Tennessee School of Medicine in 1902, and then located in Newark, Arkansas. Later he moved to Batesville where he was assoeiated in practice with Dr. L. T. Evans. Dr. Rodman was a former president and secretary of his County Medical Society.

Therefore, be it resolved by the Independence County Medical Society, that the society express to Mrs. Rodman and family, our sympathy at the loss of Dr. Rodman, also our appreciation for the faithful service rendered by him while in our midst.

Independence County Medical Society.
(Signed) Frank A. Gray,
I. M. Huskey,
V. D. McAdams,
Resolutions Committee appointed by the Independence County Medical Society.

PHYSICIANS AND THE N R A

The following statement is quoted verbatim from the Journal of The American Medical Association of September 16, 1933, and represents the most recent and accurate information that The American Medical Association has as yet been able to obtain:

1. The National Industrial Recovery Act and the President's Re-employment Agreement do not cover legally the practice of medicine. A practitioner of medicine is not within the purview of the act or of the agreement unless his practice is an integral part of a trade or industry. He incurs no legal liability if he refrains from signing the agreement. All this, however, should not prevent any physician from signing the agreement if he desires and if he can do so consistently with the purpose and spirit of the National Industrial Recovery Act.

2. Before signing the President's Re-employment Agreement, a physician should determine whether his doing so and displaying the Blue Eagle may not tend to discriminate against his less prosperous professional associates. The elimination of unfair competition is one of the basic purposes of the National Industrial Recovery Act. The President himself (1) has no authority to approve a code or to enter into an agreement that will eliminate, oppress or discriminate against small enterprises. Certainly, then, no one has the right to utilize the President's Re-employment Agreement as the means for unfairly getting the better of a competitor. The financially successful physician who thinks of signing the agreement should therefore bear in mind that if he displays the Blue Eagle he may seem to be bidding for the patronage of every person who has signed the President's Re-employment Agreement or the Consumer's Agreement, and that this will include a bid for the patronage of the patients of the less prosperous physicians in the community, who because of financial considerations cannot practice under the terms of the Re-employment Agreement. Every patient who has subscribed to either of the agreements named, it should be borne in mind, is bound by a solemn obligation to patronize physicians who have signed it. A physician who desires to subject himself to the President's Re-employment Agreement may seek the advice of his county medical society before he commits himself. The society can advise him whether the signing of the agreement and the display of the Blue Eagle by one or more physicians in the community will tend to eliminate, oppress and discriminate against others, contrary to the principles of the National Industrial Recovery Act.

3. Every county medical society may well, either with or without a request for advice from some individual physician, determine whether the requirements of the President's Re-employment Agreement are such that every physician in the community can practice under it without undue hardship. If the society finds that that is the case, the forbidden element of unfair competition and the oppression of weak competitors can hardly be said to enter into the situation, and every physician may be left to decide for himself whether he will or will not practice under the agreement. If, on the other hand, the society finds that some physicians, because of conditions beyond their control, cannot without undue hardship subject themselves to the requirements of the agreement, the society can then determine whether the agreement is susceptible of modifications that will make it possible for every physician in the community to submit to its terms. If the agreement is sus-

ceptible of being so modified, the society can submit to the National Recovery Administration a petition for such modification. The agreement itself (2) recognizes that modifications may be necessary and provides a rather one-sided way for bringing them about in order to avoid hardship in individual cases. There is no reason, however, why by a somewhat similar procedure the agreement should not be modified to meet the needs of the medical profession of a county. If the agreement is so modified, the element of the elimination, oppression, discrimination and unfairness against weaker competitors will have been removed and it may be left for each physician to choose his own course.

4. To avoid future disappointment, it must be recognized that the law does not provide for the punishment of a physician who signs the President's Re-employment Agreement and then cheats. It is understood, however, that the National Recovery Administration has in mind the setting up of machinery whereby persons who have obtained the Blue Eagle and who cheat under it will be held up to public odium through action compelling the surrender of the official insignia. County medical societies that approve the President's Re-employment Agreement in its original or in any modified form may well consider how they can best cooperate with the National Recovery Administration in any efforts that may be made to enforce honest compliance with its terms by all practitioners who sign it, whether members of the society or not.

5. A physician who employs no one can subject himself to the requirements of the President's Re-employment Agreement if he so desires and thus obtain the right to display the Blue Eagle (3). A physician without employees obligates himself by signing the agreement to hire in accordance with the terms of the agreement such employees, if any, as he may engage during the life of the agreement; that is, until December 31, 1933. Whether a physician has more than two employees in his service, or has none at all, is immaterial as far as the privilege of signing the agreement and obtaining the Blue Eagle are concerned.

6. Hospitals are not within the purview of the National Industrial Recovery Act or of the President's Re-employment Agreement unless they are integral parts of a trade or industry.

1. National Industrial Recovery Act, section 3, subsection (a), clause 2; section 4, subsection (a).

2. President's Re-employment Agreement, paragraph 14.

3. National Recovery Administration, Interpretations of President's Re-employment Agreement, Interpretation 14 (concerning owners of stores without employees).

The staffs of the Leo N. Levi Memorial Hospital and Charles Steinberg Clinic announce the Third Clinical Conference to be held at Hot Springs National Park, Arkansas, Thursday, October 5, 1933. The program is as follows:

12:00-2:00—The following clinics and ward rounds will be in progress:

Ward Rounds—M. F. Lautman.
Gastro-enterology—W. M. Blackshare.
Prenatal—Howell Brewer.
Medical Clinics—Clinic Building:
W. G. Klugh, Room 3.
H. H. Preston, Room 9.
Harry O. Lynch, Room 4.
Euclid M. Smith, Room 11.
Treatment of Arthritis with Chaulmoogra Oil (Demonstration)—G. A. Hebert.
Ophthalmology and Otolaryngology Clinic—F. S. Tarleton and O. J. MacLaughlin.
Dental Clinic—Lawrence H. Akers and C. D. Disheroon.
Surgical Clinic—A. H. Tribble and W. W. Chamberlain.
Neurosyphilis Clinic—Grayson E. Tarkington, Louie G. Martin and D. C. Lee.
Urology Clinic—H. King Wade and Associates.

10:00 A. M.
W. W. Chamberlain, Presiding.

Invocation—Marion A. Boggs, D. D.
Address of Welcome—W. W. Chamberlain.
Charcot Joints—(Demonstration by Lantern Slides)—Grayson E. Tarkington.
Case Reports, Spina Bifida—Albert H. Tribble.
Hydrotherapy in Arthritis—M. F. Lautman.
Treatment of Chronic Gonorrhea and Its Complications in the Male—H. King Wade.

Recess.

12:00 to 2:00—Buffet Luncheon served in Dining Room of the Hospital.

Afternoon Session, 2:00 P. M.
Dr. Chas. H. Lutterloh, Presiding.

Injection of Hemorrhoids—(Demonstration)—Harry O. Lynch.
Annual Report of Neurosyphilis Clinic—Louie G. Martin.
Diagnosis and Treatment of Gastric Disturbances—W. M. Blackshare.
Liver Damage in Arsenical Therapy—D. C. Lee.
The Underwater Treatment of Motor Impairment—Geo. B. Fletcher.
Clinical Manifestations, Diagnosis, Differential Diagnosis, of Empyema—C. Elmo Dovell.
Ulcerative Stomatitis following use of Mercury and Bismuth—(Demonstration of Cases)—Lawrence H. Akers.
Report on Treatment of Arthritis with Chaulmoogra Oil—G. A. Hebert.
Demonstration of Ophthalmological Cases—Ossian H. King.
7:00 p. m.—Informal Dinner, Arlington Hotel, followed by an address by Dr. Ralph A. Kinsella.

Obituary

WINKLER, EUGENE H.—Dr. E. H. Winkler of DeWitt, aged 66, died August 19, 1933. He had practiced medicine in Arkansas County longer than any other physician, having graduated from the Memphis Medical College in 1891.

He is survived by his wife, two sons and two daughters.

Book Reviews

The History and Epidemiology of Syphilis. By Wm. Allen Pusey, A. M., M. D., LL. D., Professor of Dermatology Emeritus, University of Illinois, Former President of the American Dermatological Association and of the American Medical Association. Price, $2.00 postpaid. Published by Charles C. Thomas, Springfield, Ill., and Baltimore, Md.

A complete and delightful readable outline of the history and epidemiology of syphilis. Tracing its path from the beginning to the most significant new information, the subject is treated broadly and with much literary charm.

Events and persons appear in a broad and realistic manner, with a richness of approach and a dramatic conception of facts and figures far removed from the dull and dry accounts of most scientific and medical writings. The biographies are intimate sketches, brief and to the major point.

The chapter on epidemiology is a full statement of the facts, up-to-date, bearing upon the personal and sanitary problems of syphilis. Such a complete statement of facts is not to be found anywhere else in one book.

Food Allergy. Its Manifestations, Diagnosis and Treatment, with General Discussion of Bronchial Asthma. By Albert H. Rowe, M. S., M. D., Lecturer in Medicine in the University of California Medical School, San Francisco, Calif., Chief of the Clinic for Allergic Diseases of the Alameda County Health Center, Oakland, California. Octavo 442 pages. Cloth, $5.00, net. Published by Lea & Febiger, Washington Square, Philadelphia.

There is a recognized need for a book of this character. It is based on the belief that food sensitization is one of the most powerful etiological factors in allergic disease. It supplies the practical working knowledge for recognizing and combating all of the conditions which are due to food allergy. Every manifestation that all practitioners and nearly all specialists encounter—but do not always recognize—is here clearly identified. The common gastro-intestinal symptoms concern the surgeon, bladder allergy interests the nrologist, and there are still other disturbances affecting the eye, nose, skin and nervous system which are of the first importance to every specialist in these fields. Dietitians, too, will find this book most helpful.

Diseases of the Heart. Described for Practitioners and Students. By Sir Thomas Lewis, C. B. E., F. R. S., M. D., D.Sc., LL.D., F. R. C. P., Hon. D.Sc. (Michigan), Physician in charge of Department of Clinical Research, University College Hospital, London; Physician of the Staff of the Medical Research Council; Honorary Fellow New York Academy of Medicine. Price, $3.50. Published by The Macmillan Company, 60 Fifth Avenue, New York.

This book is a clinical outline of diseases of the heart based on the author's long experience as a teacher, and presents facts which the physician is apt to meet in general practice.

He has departed from past precedents and has placed in the foreword those things an understanding of which is of supreme importance in the management of heart cases, namely, cardiac failure and angina pectoris.

Simplified Diabetic Management. By Joseph T. Beardwood, Jr., A. B., M. D., F. A. C. P., Chief of Diabetic Clinic and Associate Visiting Physician. Presbyterian Hospital in Philadelphia, and Herbert T. Kelly, M. D., F. A. C. P., Associate in Diabetic Clinic, Presbyterian Hospital in Philadelphia. Diets prepared with the collaboration of Elsie M. Watt, A. B., formerly Dietitian Diabetic Clinic Presbyterian Hospital in Philadelphia. Illustrated. Published by J. B. Lippincott Company, Philadelphia. Price, $1.50.

The methods outlined in this book should be helpful in clinic or private practice, and to the diabetic patient. The use of the "Diet Prescription Chart," as shown on the last few pages of the book, makes the calculation of the diabetic's diet a simple matter.

Modern Proctology. By Marion C. Pruitt, M. D., L. R. C. P., S. (Ed.), F. R. C. S. (Ed.), F. A. C. S. Atlanta, Georgia. Associate in Surgery, Emory University School of Medicine; Assistant Visiting Surgeon, Grady Hospital; Proctologist, Crawford W. Long Memorial Hospital and Clinic. With 233 illustrations. Published by C. V. Mosby Company, St. Louis. Price, $8.00.

The author's aim in preparing this book is to make it concise and comprehensive, with a plea for a more careful and systematic examination of patients.

WILLIAM RAY BATHURST, M. D., F. A. C. P

The Arkansas Medical Society

Dedicates This Issue of

The Journal

to the Memory of

WILLIAM RAY BATHURST

M. D., F. A. C. P.

November 13, 1876

August 31, 1933

Editor, The Journal of the Arkansas Medical Society

1912-1933

Secretary, Arkansas Medical Society

1919-1933

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In Memoriam

By DR. FRANK VINSONHALER

Dr. William R. Bathurst was born in Mount Union, Huntington County, Pennsylvania, on the 13th day of November, 1876. He attended the schools in his native county and the state institutions and moved with his family to Philadelphia at the age of nine, where his academic studies were completed. His medical education was at the University of the South, at Sewanee, Tennessee, where he was graduated in 1898. Removing to Arkansas he settled in Prescott, engaging in general practice there for several years. In 1902 he was married to Miss Anna Howell of Prescott. They have one son, William Richmond Bathurst, aged 7.

Dr. Bathurst determined to specialize in dermatology and availed himself of such eminent men as Hutchinson, McLeod, Crocker, Fox and Sequerie, in London, Fournier in Paris, Lassar and Joseph in Berlin, and Unna in Hamburg. Upon his return from abroad, in 1906, he established himself at Little Rock and easily acquired a large practice. He was appointed Professor of Dermatology in the School of Medicine of the University of Arkansas, which position he filled until the time of his death, and he was a member of the staff of the leading hospitals of the city.

Conspicuous in Dr. Bathurst's life has been his willingness to engage in unremunerative public service. He had been unremittingly loyal to the medical societies to which he belonged. In 1919, he was elected Secretary of the Arkansas Medical Society, and had been re-elected each year without opposition. The present large membership, and the solidarity of the profession of the state are largely due to his powers of organization. Since 1912, he has been editor of the State Association's Journal, and its high rank among state medical publications brilliantly attested his ability as a writer.

To illustrate further the variety of his interests, it may be mentioned that Dr. Bathurst was a Fellow of the American College of Physicians, a member of the American Board of Dermatology and Syphilology, and a standing delegate to the American Medical Association.

Dr. Bathurst's activities as Secretary of the Arkansas Medical Society have led to his participation in Medical Legislation in the state, namely, the passage of the Basic Science Law and laws governing the relations of physicians and insurance companies. He was not only a proponent of Medical Legislation, but also was interested in carrying it into effect. His position as delegate to the American Medical Association made him an active factor in National Medical Legislation.

In 1927, he was elected president of the Southern Medical Association. This is regarded the second highest gift in the profession of the United States, ranking second only to that of the American Medical Association.

Dr. Bathurst, in his religious affiliations was an Episcopalian, and was for twenty years a member of the Chapter of Trinity Cathedral. He served as member of the Board of Directors of the Y. M. C. A., as well as various civic organizations.

Perhaps no man in Arkansas was so well known to the profession of his state, or had more personal friends he could call by name. He had many who were devoted to him and from among them I have selected three whom I think are in a position to speak from an affectionate and intimate knowledge of the man. *To live in the hearts we leave behind is not to die.*

DR. M. L. NORWOOD

When Dr. Bathurst was unexpectedly and suddenly called to depart this life it was a great surprise to all his friends and a great loss to the profession. The Arkansas Medical Society will have great difficulty in finding a successor as Secretary and Editor. In his

long tenure in these positions he grew stronger and stronger each year. In all matters pertaining to the Society he was a walking encyclopedia. What information he did not know off hand was readily supplied by his efficient secretary. No man in the Society has contributed so much time to Committees on Medical Legislation as he did. He always knew what was going on and if not good for the Society, he was always on the job and ready to combat proposed bad laws and help along good ones. Dr. Bathurst, we miss you as a true friend, an able specialist, an efficient secretary and a successful business editor.

Dr. D. A. Rhinehart

Dr. Bathurst's services as Editor of the Journal and Secretary of the Arkansas Medical Society extended over a period of twenty years. His selection year after year without opposition was an evidence of his efficiency. He was acquainted with physicians in all parts of the State. He knew and could call by name more of his fellows than any other man. He was familiar with the characteristics, accomplishments, and capabilities of most of them. Dr. Bathurst's long experience as a member of the House of Delegates of the American Medical Association, as Councilor and President of the Southern Medical Association, and as an officer in the State society gave him an unusual insight into and knowledge of the affairs of national, state, and local medical organizations.

These attributes, qualifications, and experiences made Dr. Bathurst an invaluable man to the organizations he served. There were few, if any, questions that he could not answer, and few, if any, problems for which he could not supply a solution. When approached with either, at once he gave his opinion. With it all, he was helpful, friendly, kindly, and unobtrusive, often permitting others to receive the credit for something he had done.

Many of us have experienced an irreparable personal loss; the Arkansas Medical Society has lost an experienced, faithful, and competent official.

Hon. Peter A. Deisch

On August 31, 1933, there passed into the great beyond the soul of the late William R. Bathurst, secretary for many years of the Arkansas Medical Society, and the friend of every deserving physician in Arkansas.

His passing closed a brilliant, but far too brief a career of service to mankind, and bereft our world of a figure whose wide sympathies, keen intellect, sound judgment and wise counsels were never more greatly needed than at this time to help the profession find its way out of an economic and confused morass.

I find it most difficult to write temperately of Dr. Bathurst, for my admiration, esteem and high regard for him were so great, that I can truly only speak in superlatives of him. He was one of the most valuable men of our time. Weakly we say that Wm. R. Bathurst is dead—weakly, because in the friendships he established, he is not dead, nor has his enduring work for the medical profession and the citizenship of Arkansas, been diminished by his demise. We remember him for his wonderful powers of body, brain and heart, which he consecrated without limit to his friends and to his profession and to his state. We remember him because he was an intensely human, big-hearted, big-brained man. We remember him because he fulfilled and represented the very clear and definite ideal which the American people accept as the best expression in human form of American mankind. He will be among our greatest assets as long as his spirit lives.

It was easy, too, for him to make acknowledgment of the assistance of others, and to give full credit to all to whom credit was due, notwithstanding the fact that his own prestige might not seem so great by so doing. He was never known to tear down the reputation of another that his own reputation might be thereby enhanced, a somewhat exceptional record in these days of self-constituted professional reformers.

His quiet and unassuming manner, his generosity to those who disagreed with him, and his entire freedom from all that was superficial or false characterized him in the full light of the true man which he was, and endeared him to all who had intimate contact with him.

At the time of his death he could not have been loved more; his strength of character was unbounded, his opinion was sought, his record in his profession most enviable. He died at his post of duty at the hour when the

(Continued on page 96)

Original Article

CYSTS OF THE CILIARY PROCESSES and CYSTS OF THE SUPERFICIAL LAYER OF THE IRIS—REPORT OF TWO CASES*

Edward H. Cary, M. D., Dallas, Texas
Past President, American Medical Association

The literature concerning cysts of the iris has been amplified with detailed descriptions. These cysts have occurred in different parts of the iris. Occasionally there has been a description of a cyst which might have been classified as a cyst of the ciliary processes, an example of which appears in Tertseh's report to which I refer later in this paper.

There seems to be some confusion in differentiating cysts of the uveal layer of the iris from those occurring in the superficial structure of the iris. Many cysts are described, some of which occur at the base of the iris, and others, which have filled the pupil of the eye, notably as in the case reported by Doctor Weeks (1). The pupil was entirely obscured in one eye and practically so in the other, all growing from the pigment layer which protruded into the pupil and for some strange reason, this layer had become separated, forming numerous pockets protruding in many cystic formations, which in this case, closed the pupillae.

In the reports of cases, the ciliary processes and base of the iris are all brought into description, but one is left in doubt as to which part of the uveal tract is actually involved.

Case number one of "Cysts of the Ciliary Processes" is presented by reason of its extreme rarity and the pathological study which has been made; case number two of "Cysts of the Superficial Layer of the Iris," because of its rarity and the number of years it has been under observation.

Shumway (2), in a report of a case of spontaneous cyst of the iris, repeats the study made by Tertsch (3) who attempted to classify cysts in three groups:

"1. Cysts which are situated in the iris stroma itself, and arise by cystoid change of endothelial or epithelial cells, implanted on the iris stroma, or by serous enlargement of cavities in the stroma. All such cysts are surrounded by iris stroma and are situated on the anterior surface of the iris in the anterior chamber.

"2. Intra-epithelial cysts, arising from the pigmented epithelium of the posterior surface of the iris. The wall of these cysts is constituted of the epithelium in question, and bounded in front by the remains of the iris tissue. The cases of this nature develop backward into the posterior chamber and appear to be less common than those of the first category.

"3. A new group represented by a personal case of Tertsch's from the Fuch's clinic, due to an adhesion of one of the ciliary processes to the posterior surface of the iris. The cavity thus formed, tends when closed, to enlarge and form a cyst. The wall of these cysts is chiefly made up of the tissue of the ciliary processes, and to a lesser extent by the iris. They lie outside the iris tissue and develop either forward or backward, at times equally in both directions."

The history of Case 1 is presented with the clinical description illustrated in figures 1, 2, and 3, which show different magnifications for microscopic study.

Patient: Male, aged 70. Was seen in July, 1931.

History: Vision in right eye failing for two or three years.

General health good.

Had been able to read without glasses until two years previous to time of coming to office.

No history of pain nor discomfort from the eye.

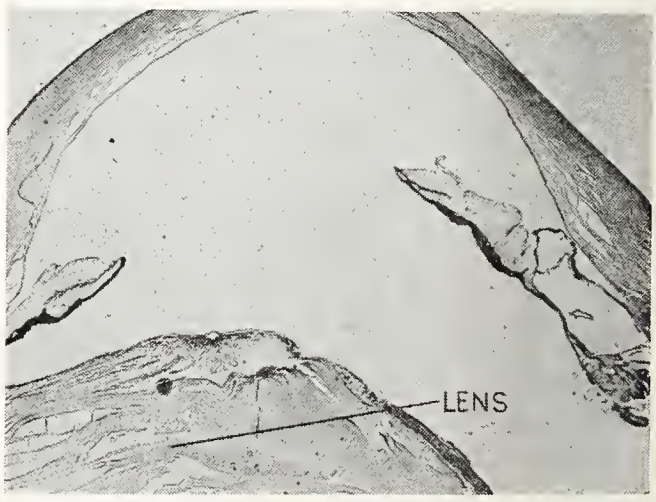

Figure 1.

*This article has been written for the Bathurst Memorial Issue of the Journal of the Arkansas Medical Society and is dedicated by the author to the memory of the late William R. Bathurst.

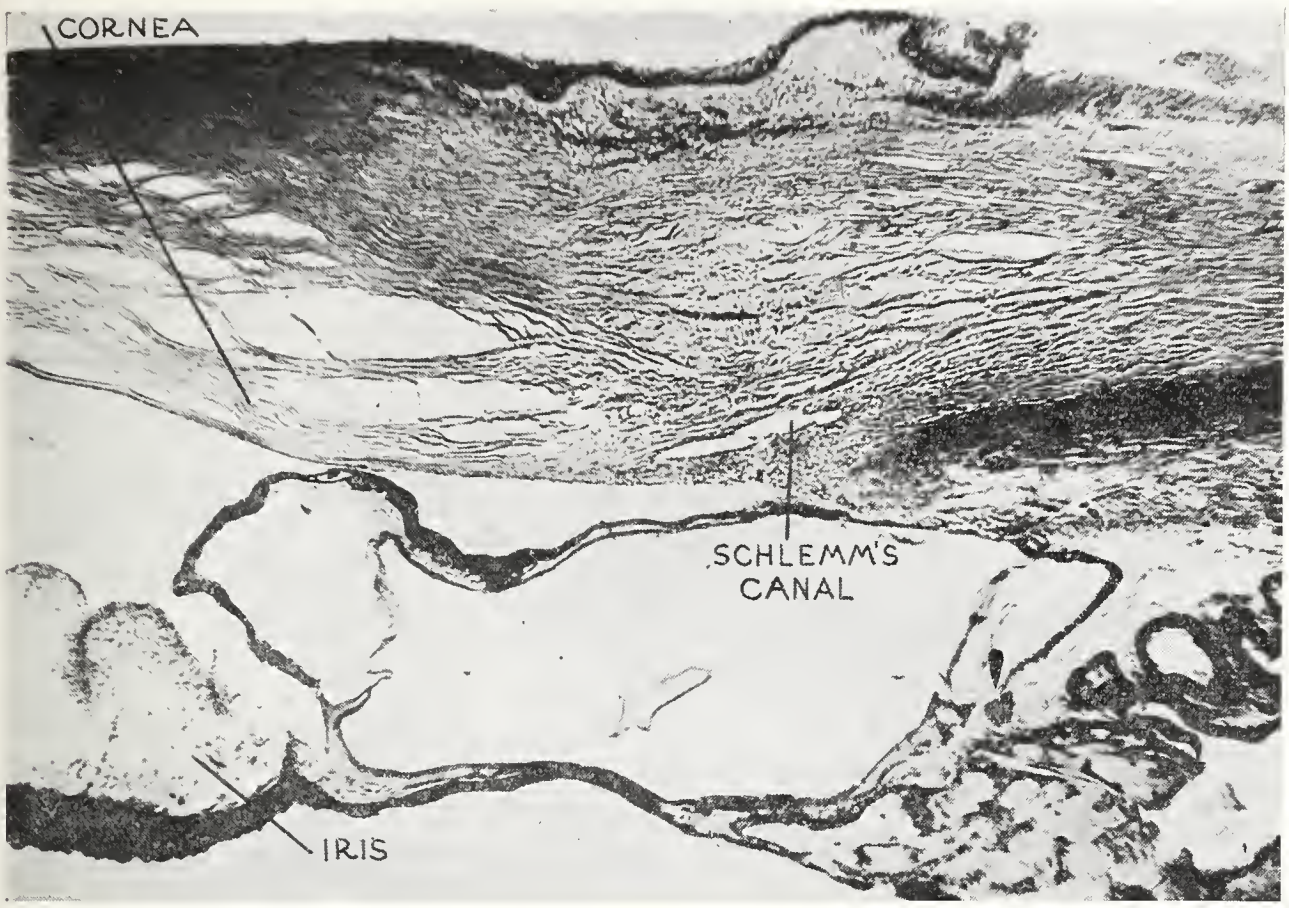

Figure 2.

Patient stated that some eight years before his eye failed, he had trouble with his right antrum, which was washed out many times during the winter.

Examination: (Tonometer).

Tension right eye O. D. 12. Light perception projection good. No letters.

Left eye 20-30ths, field normal, tension 20. O. D. crystalline lens was observed to be cataractus. A small bean-shaped tumor could be seen at the base of the iris. Tumor measured about 1½ millimeters in height and 2 millimeters in length, parallel to limbus, located about 8:00 o'clock. Tumor was heavily pigmented and seemed to be pushing up from ciliary body into anterior chamber.

With slit lamp, the structure of growth was studied. It was small and deeply situated near filtration angle. Seemed dense and highly pigmented. Did not look like cyst but very much like a melanosarcoma.

Diagnosis: Mature cataract complicated with new growth. Patient was instructed to return to office so that growth could be observed and remeasured.

Four months later, on November 10th, patient returned. Tumor then measured approximately 2 millimeters in height and 3 in length.

Having established the fact that the tumor mass was forming, the age and circumstances of the patient was then considered.

The vision of the left eye being 20-30th without glasses, enucleation of the right eye was advised.

The eye was removed and sent to the laboratory for study.

Figures 1, 2, and 3 demonstrate the cystic tumor which was growing far back with a knuckle to be seen through the cornea.

Pathologieal description as submitted by Doctor George Caldwell, Baylor University Hospital, Dallas, Texas:

"The small tumor-like mass when seen microscopically consists mainly of a partially collapsed cyst about two millimeters in maximum diameter.

"The contents of the cyst have largely escaped but where present, possess density and staining properties approaching those possessed by the vitreous.

"At its lateral margin, the cyst wall is in direct contact with the muscle of the ciliary

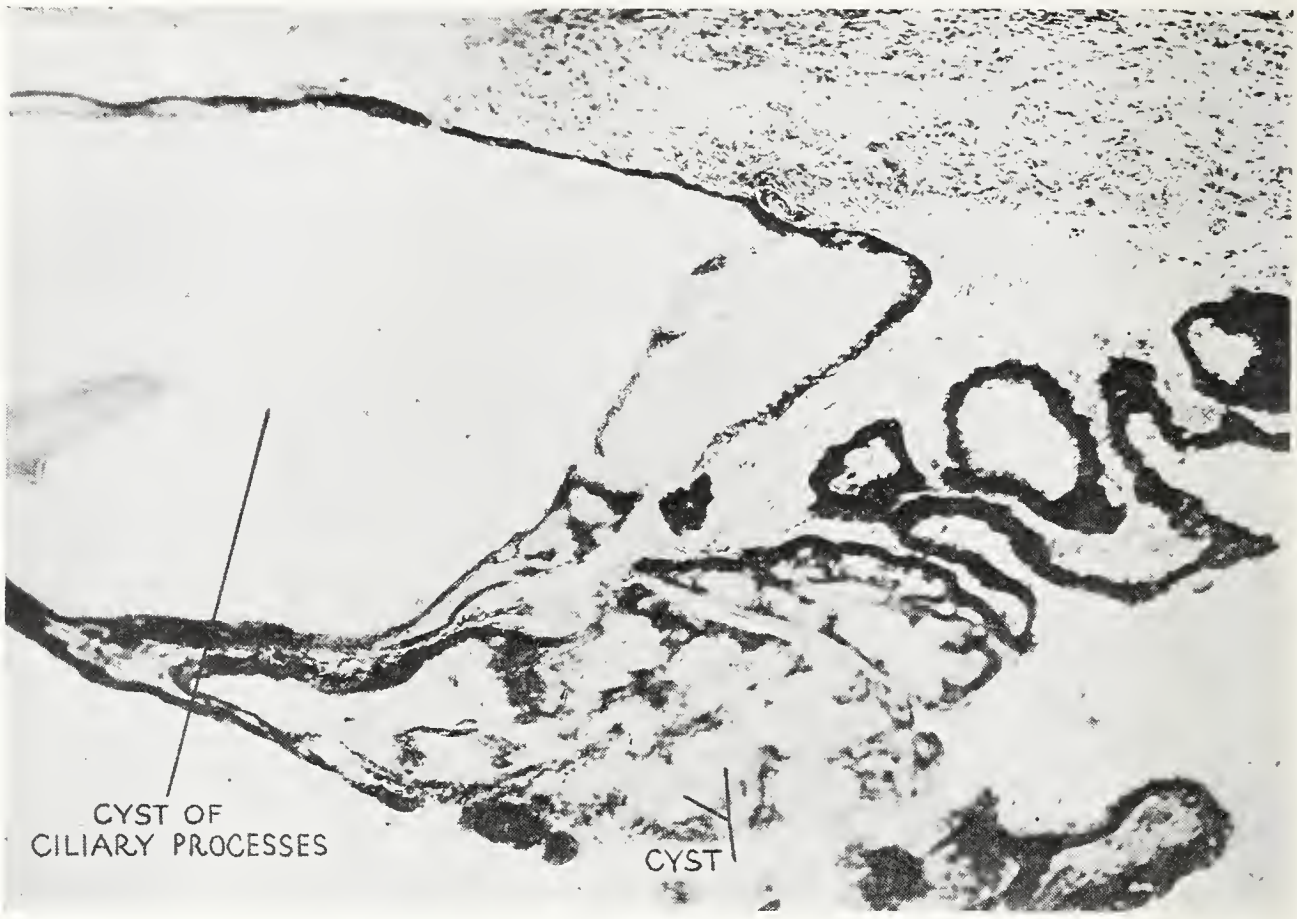

Figure 3.

body; medially it extends slightly up to the base of the iris.

"The cyst is lined throughout most of its circumference by a flattened layer of non-pigmented epithelium similar to the corresponding layer of the pars ciliaris retinae. Outside of this flattened cell-layer there is a narrow pigmented layer lying in contact with the preceding, or sometimes separated by a space filled with the protein containing cyst contents.

"At its lateral border, the main cyst is closely approximated to other smaller cystic spaces lined by a single layer of the non-pigmented epithelium derived from or constituting a part of the ciliary processes. The pigmented layer is missing from these smaller cysts, of which there are at least twelve. Their lumina contain a homogenous material, resembling vitreous, some of which seem to be derived from the myxomatous degeneration of the surrounding epithelial cells.

"The small amount of fibrous stroma associated with the hyperplastic epithelium, has, likewise a myxomatous appearance. The ciliary body is not much altered. The iris appears to be moderately thickened and its stroma edematous."

In thinking of what would have been done for the patient, had this been his only eye, it would seem that the best course would have been to have gone into the eye, catching if possible, the top of the tumor mass and subjecting it to microscopic analysis. In this way, I may have found satisfactory evidence that the tumor was not malignant and further developments could have been awaited with the hope that the intra-ocular pressure would have been better.

With any favorable condition then, the cataract would have been removed.

In this first instance, I would have likely found the top of the cyst. It would have collapsed and I may not have succeeded in getting material for the laboratory. This puncture would probably not have cured the cyst for it would have closed and continued to grow. With only one eye, effort would have been made to conserve the vision.

Doctor Cecil O'Brien, professor of Ophthalmology from Iowa, was in our city at the time and saw the case. He felt as I did that enucleation was the correct procedure.

In looking into the literature, I find that six eyes have been removed under similar conditions. The density of the mass made it im-

possible to differentiate the growth from a melanosarcoma.

Group three of Tertsch's classification of cysts was the basis of his illuminating paper because of the fact that out of some fifty-one cases collected, only one of this type appeared. The case of cyst of the ciliary processes which I am reporting will no doubt fall under this group.

Case two of the multilocular cysts occurring in a young woman, which now follows, readily falls into group one classification:

Figure 4 illustrates affected right eye, after iridectomy.

Patient: Female, Miss C, aged 16. Was seen July 8, 1925.

History: Negative, with exception of loss of vision which occurred in right eye two days before.

Examination: Found that the anterior chamber of the right eye was fairly filled with fresh blood. Tension of each eye was 19.

Within a few days the blood in the right eye was absorbed and it was observed that a small blood vessel had ruptured in one of the numerous little cysts which had formed on the iris, largely at its base, and which measured 3½ by 6 millimeters located about 4:00 to 5:00 o'clock.

These multiple tumors were covered with a brownish gray pigmented tissue which seemed thin but highly vascular, giving the impression that there would be recurrences of hemorrhage.

Figure 4.

The patient was given a thorough physical examination and found to be normal.

She had an intra-dermal injection of old tuberculin which was negative. Previously, a von Pirquet was negative.

She returned to my office many times for observation. The tumor measurements were taken and recorded each time.

Three years later, on November 20, 1928, her vision was upset and we found fresh hemorrhage in the cyst. The growth at this time measured 4 by 7 millimeters. On September 9, 1929, it measured 4 by 7½ millimeters.

On September 19, 1929, the growth was removed by doing a broad iridectomy. (Shown in figure 4.)

Since this time, the patient has been seen at intervals.

On January 21, 1933, the eye looked the same. On the pillar of the coloboma near six o'clock there are a few extremely small cystic formations.

The vision was plus 25 axis 105 in the right eye with 20-17ths. Left eye 25 axis 90 with 20-17ths.

Cysts of the pigment layer of the iris have also been classified under different heads, namely, congenital, traumatic, and secondary to diseases of the eye. As one might suppose, congenital cystic formations in the pigment layer of the iris present some distinctive features: congenital cysts are likely to be bilateral, the development is slowly progressive, and thirdly, there is no evidence of inflammation of the iris.

In an interesting report of a cyst of the uveal layer of the iris and pupillary margin, Wilmer (4) reviews the literature and a few details of case reports of the men who have written upon the subject. Indeed, as I have indicated, in all of the case reports which have been made, essayists have correspondingly reviewed all of the other reported cases of more or less similar nature.

In Wilmer's paper as well as in a more recent paper by Town (5), six cases have been recorded in which a diagnosis of melanosarcoma was made, after which the eye was removed. Four were primary cysts. These cases were reported by Wintersteiner (6), Coats (7), Pagenstecher (8), Stephenson (9), Roth (10), and Geiger (11).

The cause of spontaneous cysts of the type which I am reporting is not understood.

The first case, in which the walls are so non-translucent, compels one to think of malignancy, for melanosarcoma is found in similar places within the eye.

The second case is easily recognized as a non-malignant cyst.

In each instance, a reasonable length of time should be devoted to observation of the cases, which will enable the physician to establish some of the fundamental characteristics which will aid in differentiating the type of growth under observation.

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IN MEMORIAM

(Continued from page 91)

people of his state needed him most. It is strange. We can not fathom his earthly departure. His record stands unmarred. The story of his life is an inspiration and a guidepost to ambitious young men.

Forever enshrined in the hearts of all his contemporaries in the medical profession of Arkansas, will be the beautiful memory of William R. Bathurst.

His life was gentle; and the elements
So mixed in him that nature might stand up
And say to all the world, "There was a man."

UNITED STATES CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announces the following named open competitive examination:

JUNIOR GRADUATE NURSE

Applications for the position of junior graduate nurse must be on file with the U. S. Civil Service Commission at Washington, D. C., not later than November 10, 1933.

The entrance salary is $1,620 a year, less a deduction not to exceed 15 per cent as a measure of economy and a retirement deduction of 3 1-2 per cent. Additional deductions will be made when quarters, subsistence, etc., are furnished.

Full information may be obtained from the secretary of the United States Civil Service Board of Examiners at the postoffice or custom house in any city, or from the United States Civil Service Commission, Washington, D. C.

In the June, 1933, issue of the Journal of the American Public Health Association Doctor Park presents a terse but most informative discussion of his experience with toxoid. Every physician and health officer should read this article. As to the interval between dosage Doctor Park states as follows: The interval between injections of toxoid should be "two weeks or longer, but where it is much more convenient to make the interval only a week, it is proper to do so." As to the minimum age, Doctor Park concludes that toxoid may be given "at any age after three months." The choice of time is probably six months.

One other advantage mentioned by Doctor Park is that toxoid is much more stable than toxin-antitoxin.

The efficiency of toxoid ranges from 92 per cent to 98 per cent as compared with a range of 65 per cent to 80 per cent for toxin-antitoxin. Since toxoid may produce uncomfortable (though not dangerous) reactions in older children and in adults, it is advisable that for children above seven toxin-antitoxin be used, followed six months later by the Schick test to determine if immunity has been produced.

Original Article

THE MANAGEMENT OF CAVITIES IN THE TREATMENT OF PULMONARY TUBERCULOSIS*

L. J. Moorman, M. D., F. A. C. P.
Past-President, Southern Medical Association
Professor, Clinical Medicine,
University of Oklahoma, School of Medicine
Oklahoma City, Oklahoma.

In the words of Allen K. Krause (1): "The ultimate issue of every tuberculous focus turns upon the balance struck between central necrosis and peripheral fibrosis." When fibrosis is in the ascendency, it may be said that the healing process is centripetal and the patient's interests are conserved; when necrosis predominates, the destructive process is centrifugal and the patient's life is endangered. Unbridled necrosis and cavity formation usually mean death within a reasonable short time.

Barnes and Barnes (2), reviewing 1,454 cavity cases of pulmonary tuberculosis, found that 85 per cent of them were dead in a distressingly short period of time. The average duration of life after the diagnosis of cavity was made was approximately 12 months. The larger the cavity, the more unfavorable the prognosis. The gravity of the prognosis increases with the number of cavities, the rapidity of the pulse, and the elevation of the temperature. To some extent, the character of the cavity wall and the nature of the surrounding tissue reaction influence the prognosis.

Diagnosis: Determining the presence or absence of cavity in the lungs is not always an easy matter. The history of the case, including the character and quantity of sputum, and the presence or absence of haemoptysis, is often of great diagnostic significance. The presence of tubercle bacilli in the sputum is pathognomonic of cavitation. However, it must be admitted that tubercle bacilli may arise from cavities too small to be discovered by physical examination or *X-ray* studies. It is equally important to remember that occasionally repeated examinations of the sputum may fail to discover the presence of tubercle bacilli even in advanced cases with cavity formation. In some cases, the areas of necrosis take on the aspect of a typical cold abscess and the tubercle bacilli are destroyed by "leucocytes and enzymes (3)."

The physical signs of cavity are so variable and so dependent upon ever-changing intrathoracic phenomena, that it is unwise to expect to find in every case the accepted diagnostic criteria. However, when present, the classical signs of cavity are unmistakable and they should be assiduously sought. The fundamental methods of bedside examination should be routinely employed in every case. The physician who depends upon "intuitive sagacity" may never get deep enough to find cavities. However, in some cases a most searching physical examination may fail to reveal their presence. Such excavations without physical signs constitute veritable diagnostic pitfalls.

X-ray examinations are of great value in diagnosing cavities. In many cases where history, sputum examination, and physical exploration have failed, *X*-ray studies may reveal unmistakable evidence of cavities. In cases where cavities are suspected or known to be present, the *X*-ray may become a valuable supplement to physical examination and make it possible to more accurately determine the size and number of cavities, the nature of the enveloping capsule and the character and extent of surrounding pathology. However, this method of examination is not inviolate; occasionally cavities escape the eye of the most careful interpreter of *X*-ray films.

Treatment: In certain cases, spontaneous healing and closure of cavities may occur, especially if routine management is faithfully pursued. However, the family physician has no right to presume that his cavity cases will be blessed with such a favorable evolution. In selected cases watchful waiting under careful management is justifiable. The results of such a course should be checked by periodic examinations with *X*-ray studies. If cavities grow larger or remain unchanged over a period of three to six months, collapse therapy should be employed.

The observation of nature's course, supplemented by surgical experience, teaches us that tissue repair is favored by close apposition of the surfaces to be healed. This principle may operate as a prime factor in the beneficial results of collapse therapy when

*This article has been written for the Bathurst Memorial Issue of The Journal of the Arkansas Medical Society and is dedicated by the author to the memory of the late William R. Bathurst.

applied to pulmonary tuberculosis with cavity formation. When we take into consideration the fact that with this method of treatment cavities may be obliterated and their walls successfully coaptated, we must admit that sound surgical principles are being met, even though the surgery is, in a sense, indirect.

When we add to this the fact that collapse therapy brings rest to inflamed tissues through limitation, or cessation, of function, and probably results in favorable circulatory changes affecting the flow of both blood and lymph, we can better appreciate the remarkable results often obtained in otherwise hopeless cavity cases.

The following are the methods of collapse therapy commonly employed:

1. Artificial pneumothorax.
2. Intrapleural pneumolysis.
3. Phrenicectomy.
4. Thoracoplasty and extrapleural pneumolysis.
5. The combination of two or more of the above procedures.

Artificial pneumothorax is the method of choice and should be given a trial before other measures are considered. If the pleural space is free, the most gratifying results may be anticipated; if pleural adhesions render pneumothorax impossible, phrenicectomy or thoracoplasty, or a combination of the two, may be indicated. If the pleural space is only partially obliterated and pneumothorax progresses, perhaps with obvious benefit, but ultimately reaches a point where further improvement is improbable because of adhesions, intrapleural pneumolysis is to be considered. If the adhesions are accessible and suitable for cauterization, this operation may permit complete closure of cavities by a continuation of artificial pneumothorax and render more radical surgery unnecessary.

If the adhesions are not suitable for cauterization, other methods of collapse therapy should be considered. In certain cases, phrenicectomy alone may suffice; in others, thoracoplasty may be required.

If perseverance in the skillful application of the above measures fails to achieve desired results, and diagnostic studies indicate that cavities remain unclosed, the various methods of extrapleural pneumolysis are to be thought of.

This brief discussion of surgical measures and their application in the various conditions arising in cavity cases, may help the family physician to realize that much can be done for many of the moderately advanced, and even far advanced, cases of pulmonary tuberculosis.

In the great majority of cases, the intrical problem of determining whether or not a given case is suitable for collapse therapy and which of the various methods should be employed, must be left to those members of the profession specially qualified by training and experience to make such decisions. As a rule, team work is indispensable. The ideal combination consists of family physician, phthisiotherapist and chest surgeon.

Sanatorium management, with emphasis upon education and training, offers a most valuable approach to the difficult problem of collapse therapy. It not only supplies the best means of preparing the patient for his important role in the proposed thoracic drama, but it offers diagnostic facilities not often found outside the well-ordered institution. Thus, the phthisiotherapist, who must ever play the leading part, has a chance to learn his lines and successfully stage the play.

The accompanying *X*-ray pictures serve to illustrate some of the more important surgical steps and the results achieved. Finally, it should be remembered that these measures are to be considered only as contributing factors in the ultimate course of a long drawn-out process, and anyone of the surgical procedures mentioned above is to be considered a favorable incident in the course of treatment and not a cure.

Regardless of what has preceded collapse therapy, and notwithstanding the fact that occasionally it is accompanied by spectacular results, definite persistent management must certainly follow for at least a number of months, with a close follow-up extending over a period of years.

Fig. No. 1: M. W., age 32; female; single. Occupation, clerical work. Admitted to the Farm Sanatorium March 25, 1930, with the symptoms of moderate toxemia, cough and expectoration.

Physical examination revealed the signs of moderate infiltration in the upper lobe of the left lung with fine and medium crackling rales and signs suggesting cavity formation. Sputum positive.

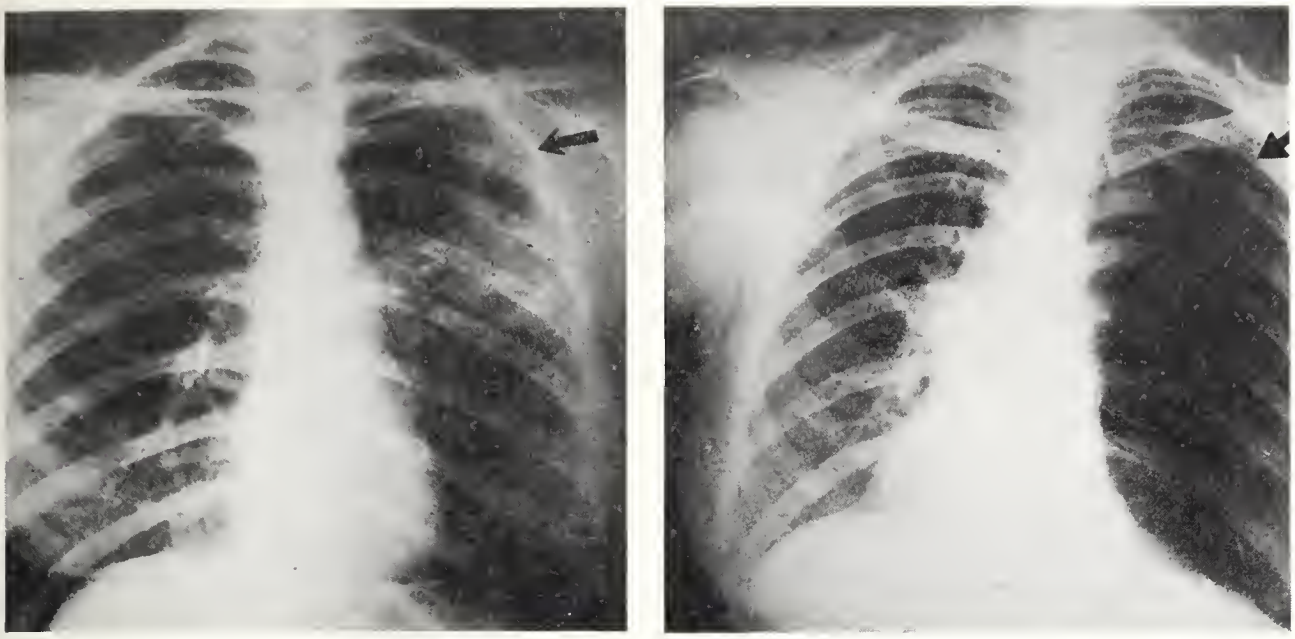

Fig. No. 1: Showing the successful closure of a large cavity by means of artificial pneumothorax.

An *X*-ray of the chest revealed an area of opacity in the upper lobe of the left with evidences of a large cavity opposite the first interspace.

Diagnosis: Moderately advanced pulmonary tuberculosis with cavity formation. See first film in Figure No. 1.

A few days after admission to the sanatorium, patient had a profuse pulmonary hemorrhage. This precipitated our decision in favor of artificial pneumothorax. We anticipated adhesions at the site of infiltration but we were gratified to find it was possible to secure practically complete collapse with closure of the cavity. Symptoms rapidly disappeared and sputum became negative. See Figure No. 1, second film.

The arrow represents the former site of cavity and a band-like adhesion which is not visible in the film but which is obviously interfering with complete collapse of the upper lobe.

After eight months in the sanatorium the patient was symptom-free and was permitted to return to her former occupation. She has worked with full earning capacity for approximately two and one-half years, pneumothorax being continued. The advisability of permitting re-expansion of the lung is now under consideration.

Fig. No. 2: W. C., age 17; female, single. Occupation, student. Admitted to the Farm Sanatorium February 15, 1931, with history of moderate toxemia, cough and expectoration.

Physical examination revealed the classical signs of advanced pulmonary tuberculosis with cavity formation in the right lung; the left lung being relatively free from physical signs.

Artificial pneumothorax was induced on February 24, 1931. This promised to be fairly successful but fluoroscopic examination and *X*-ray studies revealed the presence of multiple string-like adhesions which interfered with collapse and the closure of three or four large cavities. See Figure No. 2, first film.

The cavities are plainly seen, being accentuated by partial collapse of the lung. The arrows at the margin of the thorax are pointing toward two visible string-like adhesions. Because it was impossible to secure satisfactory collapse, intrapleural pneumolysis was advised.

Under local anesthesia, the two adhesions were cauterized. This operation was followed by prompt improvement with complete cessation of symptoms of toxemia, cough and expectoration. The sputum promptly became negative.

The second film, Figure No. 2, was made six months after cauterization. This shows the absence of adhesions and the right lung about 50 per cent collapsed with apparently no evidence of pathology. Repeated fluoroscopic and *X*-ray studies during the past two years confirm the above findings.

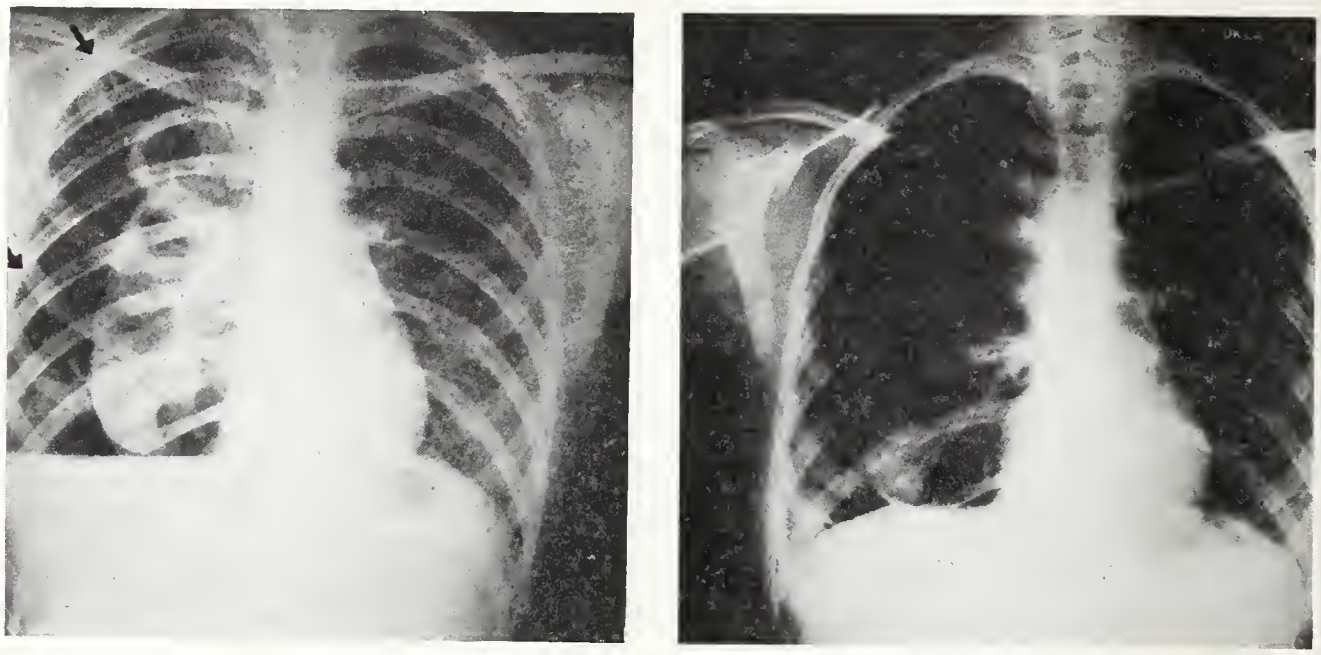

Fig. No. 2: The closure of multiple cavities by a combination of artificial pneumothorax and intrapleural pneumolysis.

The patient is symptom-free and is now preparing to take up a gainful occupation, artificial pneumothorax being continued for an indefinite period.

Fig. No. 3: H. D., age 25; female; single. Occupation, stenographer. Admitted to the Farm Sanatorium October 25, 1928. History of having been diagnosed two years before admission and having rested in bed during this period of time. Symptoms of moderate toxemia, cough, expectoration and positive sputum.

Physical examination revealed the physical signs of bilateral basal pulmonary tuberculosis predominating in the lower right. *X*-ray of chest confirmed this diagnosis, suggesting the presence of multiple cavities in the lower half of the right lung. See Figure No. 3, first film.

After three months sanatorium management, artificial pneumothorax was advised. This decision was reached chiefly because of the stationary condition and spitting of blood at each menstrual period. Artificial pneumo-

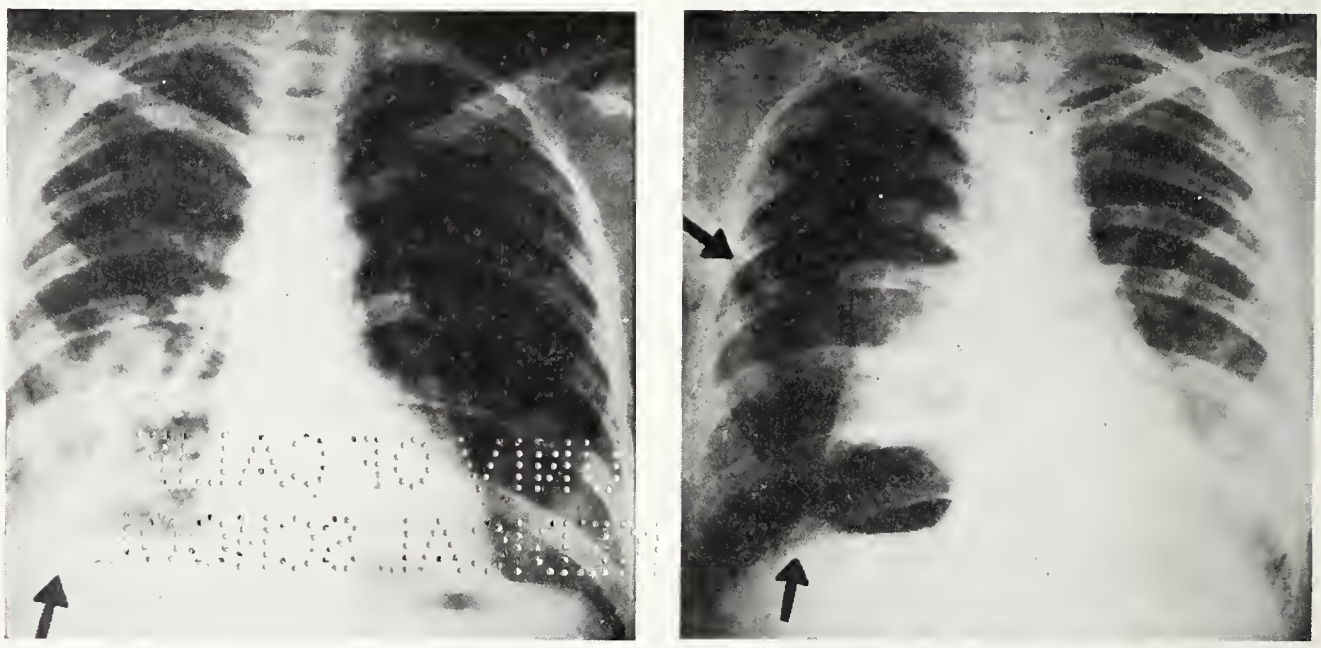

Fig. No. 3: The successful closure of cavities and the control of pulmonary hemorrhage by a combination of artificial pneumothorax and phrenicectomy.

thorax was induced on January 25, 1929. Collapse was fairly satisfactory and resulted in marked clinical improvement with reduction of cough and sputum.

As may be seen in the second film, Figure No. 3, there was a band-like adhesion attached to the dome of the diaphragm. There were other adhesions in the mid-zone of the right thorax. Because of the constant agitation brought about by the pleurodiaphragmatic adhesion, a right phrenicectomy was advised.

On January 11, 1930, this operation was performed with marked beneficial results. Cough and sputum disappeared, tubercle bacilli were no longer demonstrable and on March 7, 1930, patient returned home to resume occupation.

According to our information, pneumothorax treatments have been continued.

Fig. No. 4: M. F. L., age 28; male; married. Occupation, teacher. Admitted to the Farm Sanatorium on February 16, 1931. History of rather pronounced toxemia, cough and expectoration extending over a period of four months.

Physical examination revealed the signs of advanced pulmonary tuberculosis in the upper lobe of the left lung; the right lung being relatively free from physical signs. After a period of observation and routine management in the sanatorium, artificial pneumothorax was advised.

On February 23, 1931, artificial pneumothorax was induced with every indication of satisfactory space. After a few weeks it was observed that in spite of average fillings, cough and expectoration continued with moderate toxemia. An *X*-ray of the chest disclosed the fact that collapse of the upper lobe of the lung was incomplete because of widespread adhesions. A large cavity is plainly seen in the partially collapsed upper lobe. See Figure No. 4, first film.

While this case was not considered favorable for intrapleural pneumolysis, thoracoscopic inspection was recommended in order to determine whether or not cauterization might be successfully employed. It was found that the subclavian vessels were intimately incorporated in the adhesive process and that it would not be wise to undertake cauterization of the adhesions.

In order to bring about sufficient collapse of the upper lobe to close the large cavities which are indicated by the arrow, we advised an upper thoracoplasty. On June 3, 1931, sections of the first to the fourth ribs inclusive, were removed. This operation was not immediately effective, but soon it was possible for the patient to note gradual improvement.

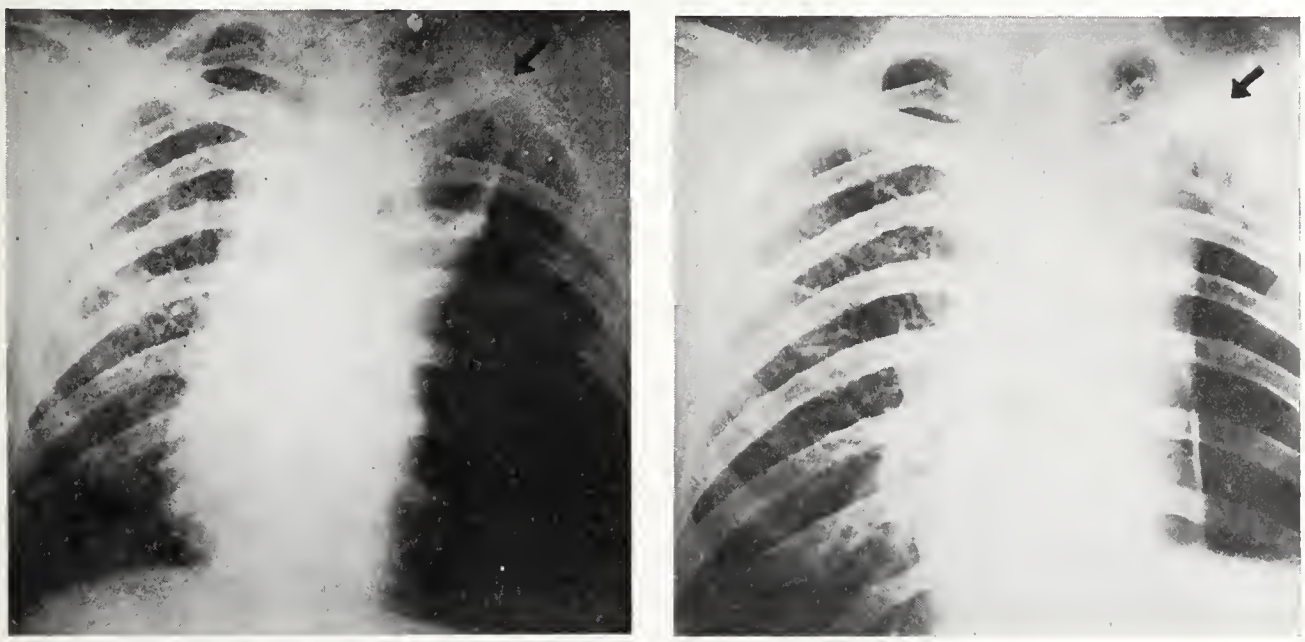

Fig. No. 4: Showing the failure of artificial pneumothorax to close a large cavity in the upper left. Intrapleural pneumolysis impossible because of intimate relationship of adhesions to subclavian vessels. Cavity closed by thoracoplasty.

Three and one-half months later the cavities were closed and the patient symptom-free and the sputum negative. See Figure No. 4, second film.

The sputum was persistently negative, and on account of the patient's good condition he was permitted to resume his occupation as teacher with the promise that he would have frequent sputum examinations in order that his pupils might have proper protection. For his own protection, as well as that of his pupils, he was urged to report for periodic physical examinations and *X*-ray studies.

If time and space were available many cases with illustrative cuts might be presented, however a careful study of the four cases reported will reveal the far-reaching possibilities of collapse therapy when properly applied in well chosen cases.

The accompanying illustrations graphically portray the beneficial results of artificial pneumothorax, intrapleural pneumolysis, phrenicectomy and thoracoplasty when applied either singly or in combination.

Generous credit should be given to Dr. Horace Reed, Oklahoma City, the associated surgeon in the treatment of these cases.

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2. Barnes, Harry L., and Lena, R. P.: The Duration of Life in Pul. Tb. with Cavity. Amer. Rev. of Tb., Vol. 17, page 412, 1928.

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With every prospect of a banner meeting, the Southern Medical Association moves on to Richmond for its next annual convention, beginning on the 14th and extending through the 17th of November.

Probably at no time in the history of the nation has solidarity of effort and thorough accord of spirit been more necessary than at this moment when the clouds of the devastating depression seem to be breaking. The physicians of the South, always alert to opportunities and obligations, can "do our part" just now in no more effective way than by bringing to one another the stimulus that flows from the companionship, from the broadening of ideas, from the actual dissemination of new thought that always mark the sessions of this great organization.

It seems fitting that this girding of the medical forces of the South for the new day that is dawning should occur in the capital of the Old Dominion, the focal point of so many stirring events in the history of the United States. Today a metropolitan area of wide dimensions and a medical center of real note, Richmond, of a yesterday that reaches back to the dawn of English occupancy of this continent, is filled with memorials of great names and greater deeds that, along with its natural beauties, lend it a lure, a charm equaled by few other American cities. To these physical and historic embellishments it adds a warmth of hospitality that assures a genuine and winning welcome to our association.

In behalf of the profession in this city as expressed by your host, the Richmond Academy of Medicine, we extend to the physicians of the South cordial greetings and expression of our earnest desire to have you with us during these notable sessions. General and sectional programs have been admirably arranged and the clinics and scientific exhibits will offer demonstrations of lively interest. Local committees will spare no effort to contribute to the comfort and convenience of the delegates and such guests as may accompany them. The social diversions offered by the city will be very engaging and the points of interest here and in the surrounding territory will lead you into many delightful byways. Let us hope, then, to see you among this great host. It will be our pleasure to solve your problems of transportation, of hotel reservations, or of anything else that may be bothering you. If you have established no other contacts, the undersigned will be very gratified indeed to receive your communication and direct it into the proper channel for immediate action.

JOSEPH F. GEISINGER, M. D.,
Chairman, Publicity Committee.
Address: Stuart Circle Hosp., Richmond, Va.

Resolutions and Tributes

RESOLUTION ADOPTED BY THE COUNCIL OF THE ARKANSAS MEDICAL SOCIETY IN MEETING SEPTEMBER 15, 1933

We have come together today to do honor to the memory of a respected chief and a beloved colleague. William R. Bathurst (who died August 31, 1933) was a man who combined in rare proportions the ability to heal, great executive ability in the conduct of the affairs of the Arkansas Medical Society, an appreciation of the value of practical methods in the solution of life's problems, and a talent for administration compounded of sympathy, poise, firmness and good judgment. These traits of character and of personality made him an executive whose usefulness to the profession will be increasingly understood and valued through the years.

The admiration of the council and officers of the Arkansas Medical Society for the administrative capability of Dr. Bathurst was no less than their love for him as a friend and their respect for him as an associate. Kindly, interested, tolerant, faithful, honest and public-spirited, he made and retained a large group of friends drawn from all the profession, the student body of the Medical Department of the University of Arkansas, his city and his state.

Appropriately may it be said of him that he was an honorable councilor, a good and just man.

L. E. McCaskill, M. D.,
Chairman of Council.
L. V. Parmley, M. D.

Whereas, the Supreme Architect of the Universe, in his infinite wisdom, has taken from our presence our beloved fellow member, Dr. William R. Bathurst; and,

Whereas, Dr. Bathurst was for a long time a highly respected and influential member of this society; and,

Whereas, Dr. Bathurst served for many years as Treasurer of the Pulaski County Medical Society, as Secretary of the Arkansas Medical Society, and as Editor of the Journal of the Arkansas Medical Society; and,

Whereas, Dr. Bathurst was always public-spirited, kindly, generous, cheerful, co-operative, and proficient;

Therefore, Be It Resolved, by the members of the Pulaski County Medical Society that we mourn the loss of Dr. Bathurst, that we convey to Mrs. Bathurst and son our heartfelt sympathies, and that we incorporate this resolution in the minutes of this meeting.

M. E. McCaskill, M. D.,
Chairman,
L. V. Parmley, M. D.,
D. A. Rhinehart, M. D.

RESOLUTIONS OF RESPECT TO DR. BATHURST

(Staff, City Hospital, Little Rock, Ark.)

We were all shocked at the sudden passing of our beloved friend and colleague, the late Dr. Wm. R. Bathurst. He was not only a faithful and loyal friend, but possessed qualities of mind and soul that compelled the respect and admiration of all associated with him. He was indeed a wonderful character who knew how to portray the highest ideals of the profession and steadily performed the duties of a citizen and of a friend. No towering granite monument will be necessary to perpetuate the memory of Dr. Bathurst.

Whereas, the evidence of merit should be given to those whom merit is due,

Therefore, Be It Resolved, that the Staff of the City Hospital of Little Rock, Arkansas, hereby tender our profound sympathy to his family and associates. His loss is a distinct loss to our Staff.

"He is not dead this friend—not dead,
But in the paths we mortals tread
Got some few faltering steps ahead,
And nearer to the end."

R. Q. Patterson,
L. V. Parmley,
E. H. White,
Committee.

We, the members of the Benton County Medical Society were shocked and deeply grieved when news reached us of the sudden and untimely death of our co-laborer and worthy Secretary of our State Medical Society, Dr. Wm. R. Bathurst.

We shall always remember his amiable disposition, faithfulness and efficiency in conducting the affairs of the society as secretary and as editor of our State Journal.

To his family we extend our heartfelt sympathy and share with them a great loss. In

condoling with them we have the consolation, however, of having had the privilege of association and fellowship with a noble character and the knowledge that the helpful service rendered by him will never be forgotten but will doubtless stimulate others to emulate the excellent example set by him.

THE COMMITTEE ON NECROLOGY
for the Benton County Medical Association.

It is with profound sorrow and a feeling of personal bereavement that we, the members of Clay County Medical Society, gather in special session to pay our last tribute of respect to our deceased editor and secretary, William R. Bathurst, who for the past twenty years has been the guiding spirit of the State association and the sincere personal friend of each of its members.

We keenly miss his warm hand-clasp, his sympathetic understanding, his wise counsel and his untiring activity in behalf of this medical fraternity.

Though his work among us is finished, his memory shall ever be an inspiration and challenge to us to carry on, as he so nobly did.

CLAY COUNTY MEDICAL SOCIETY
F. H. Jones, *President.*
J. E. McGuire, *Secretary.*

Resolution by the Cleveland County Medical Society on the death of W. R. Bathurst:

Dr. Bathurst, an honored and very distinguished physician, has passed on to his reward. His field of activity covered a large territory. He was a gentleman of the highest type, honored and loved by all who knew him. To his loved ones we extend sympathy in this sad bereavement.

Respectfully,
CLEVELAND COUNTY MEDICAL SOCIETY
A. J. Hamilton, *President.*
W. G. Hancock, *Secretary.*

Jonesboro, Ark., September 1, 1933.

The Craighead-Poinsett County Medical Society, called in special session this day, hereby expresses to the family of Dr. William R. Bathurst, of Little Rock, our utmost sympathy in their hour of bereavement.

Collectively, we express our loss to the cause of organized medicine and commend his untiring effort in this behalf. We know of no other doctor in the state whose efforts in the cause of organized medicine have been as far-reaching and tireless.

We hereby extend our utmost sympathy to his family, his friends and associates in our mutual loss.

CRAIGHEAD-POINSETT MEDICAL SOCIETY
E. R. Barrett, *Secretary.*

Whereas, God, in His infinite wisdom has taken from our midst our colleague and friend, Dr. William R. Bathurst, Little Rock, Arkansas, we, the members of the Crawford County Medical Society do hereby offer the following resolution:

Resolved, that we wish to record our profound grief and shock on learning of the sudden passing away of our beloved friend, the Secretary of our State Society, Doctor William R. Bathurst. His exceptional qualities of mind and heart have increasingly, from year to year, through many years, endeared him to us all.

To those who occupied the innermost sanctuary of his affections and love we would extend our sincerest sympathy, and say to them: "We, too, mourn your irreparable loss."

Be it further resolved, that this resolution be entered upon the permanent records of this society, and that the Secretary transmit a copy thereof to the family also that copies be sent to the Journal of the Arkansas Medical Society.

CRAWFORD COUNTY MEDICAL SOCIETY,
Jos. B Trice, *President.*
S. D. Kirkland, *Secretary.*

It was with deep regret and sorrow that we learned of the passing away of our beloved State Secretary, William R. Bathurst.

We shall miss his warm hand shake, his kindly, cordial greeting, his inspiring editorials.

Resolved, that resolutions of respect be spread upon the minutes of this society.

We extend our sympathy and consolation to the loved ones he has left behind.

THOS. DOUGLAS, Secretary,
Franklin County Medical Society.
October 13, 1933.

Conway, Ark., September 21, 1933.

The Faulkner County Medical Society, in session duly assembled, does hereby authorize, resolve and offer the following resolutions:

Whereas, God in his infinite wisdom has taken from our midst Dr. William R. Bathurst, a beloved fellow member, and for many years Secretary of the Arkansas State Medical Society;

Therefore, Be It Resolved, that not only we, but the State of Arkansas has lost one of its most distinguished, efficient and loyal citizens;

Therefore, Be It Further Resolved, that the Faulkner County Medical Society express to his family our sympathy at the loss of Dr. Bathurst and our appreciation for faithful service rendered by him while in our midst.

Be It Further Resolved, that this resolution be entered upon the permanent records of this society and that the secretary transmit a copy thereof to the family, also that copies be sent to the Journal of the Arkansas Medical Society.

H. E. Cureton, *President.*
Marcus T. Smith, *Secretary.*

Paragould, Ark., Oct. 18, 1933.

With feelings of deepest regret, the Greene County Medical Society deeply feels it a duty to record the passing of one of the most valued and beloved members of our State Society, Dr. William R. Bathurst, who the Father of us all saw fit in His infinite wisdom to take from our midst August 31, 1933.

Because we realize to the fullest extent the benefits which our State Society has derived as a result of the faithful and unselfish work of this great professional brother, and because of the warm personal feeling inspired in our hearts by his kindly, unselfish life; be it

Resolved, that we inscribe upon our records this tribute to his memory, that future generations may know and appreciate his splendid and devoted character, his many good deeds, and the respect and esteem in which he was held; and

Resolved, that a copy of these resolutions be transmitted to the Journal of the Arkansas Medical Society, with the assurance of our sincere sympathy. May our Heavenly Father console his family and many sorrowing friends, and may these words of appreciation and high regard be a solace in years to come.

W. M. Majors,
Secretary Greene County Medical Society.

Whereas, God in His infinite wisdom has suddenly snatched from our midst, our colleague, Dr. William R. Bathurst; and

Whereas, Dr. Bathurst was endeared to us by his tact, genial personality and winsome appearance, which drew men to him, wherever he met them; and

Whereas, Dr. Bathurst gave to organized medicine more than twenty-five years of active service, the Arkansas State Medical Society should hold in loving memory the constructive service he rendered as secretary to the society and editor of the State Medical Journal. Not only did he serve the Arkansas State Medical Society, but he was nationally known and recognized for his constructive work. As delegate to the American Medical Association on numerous occasions, he labored for all the progressive things and in the South he was honored as a councilor and as president of the Southern Medical Association. His work and his presence will be missed in both these organizations, to which he was an honor and a credit; and

Whereas, as a citizen, he was upright and honorable, standing always for the best in civic affairs and doing always what a good man should do. He had fine business judgment which he used not only in his own profession, but in properly managing the affairs of our own State Society;

Therefore, Be It Resolved, by the Garland County-Hot Springs Medical Society in session assembled, that we give thanks for the arduous service Dr. Bathurst has rendered us; that we feel that his life and his conduct has been an honor to us; that our profession has been uplifted by his labors for us; and that we extend to the Pulaski County Medical Society, the State Medical Society and to Mrs. Bathurst and her child our sympathy at their loss; and

Be It Also Resolved, that a copy of this resolution be sent to Mrs. Bathurst, to the Pulaski County and State Medical Society and that it be spread upon the minutes of our society.

J. H. Chestnutt, *Chairman,*
W. F. Porter,
G. A. Hebert.

Be it resolved, by the Hot Spring County Medical Society that in the death of William R. Bathurst, Arkansas lost one of its most valued citizens, the medical profession one of its most loyal and loving members, and the Arkansas Medical Society one of its most conscientious and distinguished members, a man

of high ideals, unlimited ability and greatest vision.

Be it further resolved, that we the members of the Hot Spring County Medical Society, extend to the bereaved relatives and friends our heartfelt sympathy, also that a copy of this resolution be sent to Journal of the Arkansas Medical Society for publication, and that a copy be placed in the permanent records of the Hot Spring County Medical Society as a reminder to the future physicians of William R. Bathurst, the ideal physician, both as a man and as a physician.

J. M. Williams, *President.*
E. T. Bramlitt, *Vice-President.*
Herman L. Brown, *Secretary.*

September 30, 1933.

The Jefferson County Medical Society in special session called adopts the following:

Whereas, we have been called on to realize that in the recent death of Dr. W. R. Bathurst, we have lost one of the most valuable members of our profession; one who has been untiring in his efforts to advance scientific medicine, and the champion of organized medicine. Dr. Bathurst has faithfully, courageously, and efficiently served the Arkansas Medical Society as its secretary for many years, and has endeared himself in the hearts of all physicians, and his death is keenly felt.

Be It Resolved, that the Jefferson County Medical Society joins with other units of the Arkansas Medical Society in expressing its grief in the loss of Dr. Bathurst as a physician, and one of Arkansas' highest type of citizens.

Be It Further Resolved, that a copy of this resolution be spread on our minutes, and that we extend to members of his bereaved family our heartfelt sympathies.

W. G. Pitman,
W. T. Lowe,
Committee.

Whereas, God in His infinite wisdom has issued His final summons to our beloved colleague, Doctor William R. Bathurst, and

Whereas, we, the Johnson County Medical Society, deeply regret the untimely death of our State secretary and editor of the "Journal" and feel that in his death our society has sustained an irreparable loss;

Therefore, Be It Resolved, that we, the Johnson County Medical Society, in session duly assembled, express to Mrs. Bathurst and family our sympathy in their great hour of sadness, and our appreciation for the faithful service rendered by him to humanity.

Be It Further Resolved, that this resolution be entered upon the permanent records of this society and that the secretary transmit a copy thereof to the family and to the "Journal" of the Arkansas Medical Society for publication.

Geo. L. Hardgrave, M. D., *Pres.*,
Earle H. Hunt, M. D., *Sec.*,
James M. Kolb, M. D.,
G. R. Siegel, M. D.,
Memorial Committee.

We, the members of the Miller County Medical Society, feel that in the death of Doctor Bathurst we have lost a wise counselor, a champion of organized medicine, a physician true and loyal to the interest and activities of the representative members of the profession throughout the State. His even temper and striking personality won for him the friendship of all who knew him. He labored under handicaps in upbuilding the Journal and carrying on during this period of depression and we unreservedly deplore the death of him, who was so sorely needed to fight the battles of the medical profession in Arkansas.

The memory of Doctor William Bathurst and his excellent service to the profession of the State will ever remain fresh with us of the Miller County Medical Society and we, the members of the Miller County Medical Society, unanimously vote to spread these resolutions on the minutes and desire that a copy be sent to his wife.

L. H. Lanier, *President.*
J. F. Williams, *Sec'y-Treas.*

The entire membership of the Mississippi County Medical Society deeply deplores the untimely death of our late editor and secretary, and feel that in the loss of Dr. Bathurst organized medicine has sustained a great loss; the public at large has been robbed of a champion of their cause; and we hereby extend to the members of the bereaved family our most tender sympathy in their hour of sorrow. The efforts and works of Dr. Bathurst will long be cherished by his friends and co-workers.

A. M. Washburn, *President,*
Mississippi County Medical Society.

At a special meeting of the Polk County Medical Society, held at Mena, Arkansas, on September 29, 1933, the following resolutions and expressions of sympathetic love and esteem for the late Wm. R. Bathurst were made a record of the meeting:

Whereas, we have learned with deep regret that Dr. Wm. R. Bathurst was called to his eternal rest on the 31st of August, last, all coming as a shock to every physician in the State of Arkansas; and,

Whereas, Dr. Bathurst was held and esteemed as one of the brightest men of the profession in the State, and one of the most skillful in his chosen specialty of the profession, and was held in this exalted way of esteem and appreciation by the entire medical personnel; and

Whereas, his indefatigable efforts in behalf of our work and the profession to build it to a more eminent and efficient organization was never ceasing and his noble principles of love and ethics for every physician in the State made of him a dear friend to each doctor, and with his wonderful resourcefulness in editing and publishing our State Medical Journal, making of it a publication both instructive and edifying to all the doctors of Arkansas; therefore,

Be It Resolved, that we express ourselves individually and collectively as deeply sad over his passing, and that we sympathize deeply and profoundly with his bereaved family, and

Resolved, that in his passing away, we have each lost a very dear and much beloved friend, and the medical profession of Arkansas has lost one of its most brilliant and highly scientific members.

Resolved, that as a further mark of respect, a copy of this be spread upon the minutes of the Polk County Medical Society, and a copy of the same be sent to the bereaved family, and also to the editor of the Arkansas Medical Journal.

F. C. Mullins, Sec. Polk Co.,
Frank A. Lee, Vice Pres.,
Committee.

Whereas, Dr. William R. Bathurst has served the Arkansas State Medical Society as its Secretary from 1912 until his Heavenly Father called him home, August 31, 1933; and

Whereas, Dr. Bathurst has been so liberal in his services to the county medical societies;

Therefore, Be It Resolved, that we express our appreciation of his ability and unselfish services rendered Prairie County Medical Society; and

Be It Resolved, that a copy of these resolutions be printed in the Arkansas Medical Journal, a copy sent to Mrs. Bathurst and a copy recorded in the minutes of Prairie County Medical Society.

Respectfully submitted,

James Parker, *President.*
T. G. Porter, *Secretary.*

RESOLUTION OF RESPECT TO DR. WILLIAM R. BATHURST

Forrest City, Ark., Sept. 19, 1933.

Whereas, the useful life of Dr. W. R. Bathurst was ended recently, and,

Whereas, the St. Francis County Medical Society, deeply mourns his loss and feels that it has been honored by his long devoted energy to organized medicine and will always remember him as a man of the highest principles, most genial temperament and unfailing loyalty to our profession.

Be it resolved, that this society extend its heartfelt sympathy to the bereaved family, and that this resolution be spread on our minutes and a copy thereof be sent to his family.

P. P. Boggan,
N. C. McCown,
Resolution Committee.

The Saline County Medical Society at the regular monthly meeting, September 4, taking cognizance of the death of our beloved Secretary, Dr. William R. Bathurst, named a committee to express the sentiments of the Society through the Journal. The following was offered:

Whereas, the All-wise God having seen fit to take our beloved personal and professional friend from our midst, this Society realizing the great loss to the profession of the state and nation,

Therefore, Let Us Resolve, to uphold the high ethical standards as he exemplified them in his contacts with his professional brethren and that we appropriate, to our benefit, his sound editorial advice given in our official organ. We appreciate him as a true disciple

of Esculapius and as Abou Ben Adhem. He loved his fellow man. May his tribe increase.

E. A. Buckley,
W. W. Ward,
Thos. C. Watson,
Committee.

Resolution of respect by Sebastian County Medical Society upon the death of W. R. Bathurst, M. D., F. A. C. P., Secretary, State Medical Society, Little Rock, Arkansas:

Whereas, our Heavenly Father, the Supreme Physician of the Universe, in His benign wisdom, has seen fit to take from our midst our beloved friend and associate, William R. Bathurst; and,

Whereas, his passing leaves a sad vacancy in the ranks of the Medical Society of the State of Arkansas, the loss of a most respected and ethical member, one whose purpose in life was the upbuilding of higher medical standards and helping his fellowman; and

Whereas, we honor him as Past President of the Southern Medical Association and Secretary of the Arkansas Medical Society for the past fourteen years;

Be It Resolved, that we will ever cherish his memory and mourn his untimely death; and

Be It Further Resolved, that the Sebastian County Medical Society extend its condolence to his bereaved family by these expressions of sympathy, and that these resolutions be spread upon the minutes of this society and a copy be sent to his sorrowing family.

Respectfully submitted,
Sebastian County Medical Society
D. W. Goldstein,
H. Moulton,
W. G. Eberle,
Committee.

At a meeting of the Scott County Medical Society October 3rd, the following resolution was passed:

Resolution of respect, to Dr. W. R. Bathurst who died August 31, 1933:

Be It Resolved by the Scott County Medical Society, that the society expresses to Mrs. Bathurst our sincere sympathy at the loss of Dr. Bathurst, and our appreciation for the work that he has done for organized medicine in Arkansas.

(Signed) L. D. Duncan,
F. R. Duncan,
Geo. Holitik,
Committee on Resolutions.

Be It Resolved, by the Washington County Medical Society that in the death of William Ray Bathurst, Editor of the Journal of the Arkansas Medical Society, the State has lost one of its honored medical men, a man who stood high in his special line of work, dermatology. Many of his patrons will miss his helpful advice and the medical men of the State will miss his kindly greetings and his high regard for medical ethics.

Be It Further Resolved, that the State Medical Society will miss him in the financial management of the publication of The Journal that kept this publication out of debt and enabled the State Medical Society to lay by a small surplus when passing through the greatest financial depression of its existence.

H. D. Wood, M. D.,
A. S. Gregg, M. D.,
W. H. Mock, M. D.,
Committee.

We, the members of the Woodruff County Medical Society, desire to express our sympathy to the bereaved members of the family of our deceased co-laborer, Doctor William R. Bathurst, in the loss of husband and father.

Therefore, Be It Resolved, that we medical men and co-laborers in the field of medicine, the Woodruff County Medical Society, the Arkansas Medical Society and the Great State of Arkansas have lost a great citizen, friend and councillor, in the death of Doctor William R. Bathurst of Little Rock, Arkansas.

Furthermore, Be It Resolved, that a copy of this resolution be forwarded to the Arkansas Medical Journal, also to the family of our esteemed friend.

L. E. Biles, M. D., *Secretary.*

Whereas, the untimely death of our beloved and highly esteemed brother, Dr. William R. Bathurst, has shocked our entire Club, the Grim Reaper striking this useful citizen and splendid Rotarian down in the very heyday of his professional fame and civic usefulness; and

Whereas, our deceased brother, as Secretary of the Arkansas State Medical Society,

as a distinguished specialist in his chosen field of endeavor and in his manifold activities as a citizen and as a Rotarian, exemplified the very highest traditions of Rotary—"Service Above Self."

Therefore, Be It Resolved, that the Rotary Club expresses to the widow and family of Dr. Bathurst our sincere fraternal sympathy; that we commend his example to all of our members as one worthy of any relation, and that the secretary of the Club forward a copy of these resolutions to Mrs. Bathurst.

Charles H. Brough,
Val Parmley,
John Williamson,
Committee.

Few will realize the heavy heart of the writer this day. We have just laid to rest all that remains of that lovable personality, William R. Bathurst. The best testimonial any man can pay to another is "He was my best friend." I have known William R. Bathurst intimately for nearly a quarter of a century —as few men know another. We worked side by side, day after day and I have seen him under the stress of every known circumstance, and have found him to be always the genial, wholesouled friend that he was to the last.

The passing of William R. Bathurst is a genuine loss to Little Rock and Arkansas. It is a loss to your scribe from which he never expects to recover. We can ill afford to lose friends at any time, but it is a catastrophe to lose your best friend. There is a time when words fail you, and this is the time. I am sure we all grieve at our loss, but we obtain a consolation when we realize that William R. Bathurst will never die in our hearts.

—*Rotary Club News*, Little Rock, Ark.
September 4, 1933.

MEMORIAL RESOLUTION ON THE DEATH OF DR. WILLIAM R. BATHURST

"The boast of heraldry, the pomp of power
And all that beauty, all that wealth ere gave,
Await alike the inevitable hour—"

Whereas, it is with a sense of very deep loss and sorrow that the Arkansas Tuberculosis Association records the passing on August 31, 1933, of Dr. William R. Bathurst, a late member of the board of this organization. Though he had not reached the meridian of life by a number of years, yet he had reached a high degree of medical attainment and had shown himself capable of exhaustive and accurate research into the most difficult problems of his profession; and,

Whereas, in the passing of Dr. Bathurst the Association has suffered a loss that cannot easily be overcome even with the devoted thought and efforts of the many firm and true friends who remain to carry on its work; and

Whereas, as Secretary for many years of the Arkansas Medical Society, Dr. Bathurst ever proved himself to be an unfaltering friend to this Association, and faithfully, fairly, courteously and diligently undertook to, and did forward the aims of this Association in its efforts to ameliorate the sufferings of mankind; and

Whereas, in the loss of such a friend, we may well and properly say with the poet:

"Men are of two kinds, and he
Was of the kind I'd like to be.
Some preach their virtues, and a few
Express their lives by what they do.
That sort was he. No flowery phrase
Or glibly spoken word of praise
Won friends for him. He wasn't cheap
Or shallow, but his course ran deep,
And it was pure. You know the kind
Not many in a life you find.
Whose deeds outran their words so far
That more than what they seem, they are."

Therefore, Be It Resolved, by the Arkansas Tuberculosis Association, assembled in its twenty-fifth annual meeting, that in the death of this true friend of humanity, our Association has suffered an irreparable loss, and our State has been deprived of one of its most useful citizens, and that we express our earnest and heartfelt sympathy to the bereaved family in the loss which we share with them.

Mrs. W. T. Dorough,
Miss Erle Chambers,
Peter A. Deisch,
Committee.

DR. WILLIAM R. BATHURST

Dr. William R. Bathurst was one of those fortunate men who find an object in life which both absorbs and rewards their interest. For him it was a specialized branch of medical science. The enviable place he held in Ark-

ansas and in the South as a dermatologist and radiologist was won through the unremitting application of his own ability. He carved a career by mastering his chosen subject.

His fellow physicians, and patients throughout the state, know what they have lost in his untimely death, made all the more painful by the fact that he had seemed to be in the best of health and at the height of his usefulness.

Devoted as he was to his professional work, Dr. Bathurst found time for outside interests and contacts to which he brought not only keen intelligence but the glow of a kindly and generous personality. It may be said of this successful physician that he was in the fullest sense a good and useful citizen as well, and one whose taking away is a sad loss to Little Rock and to Arkansas.

—*Editorial, Arkansas Gazette.*

"Dr. Bathurst's untimely death comes as a great shock to the medical profession of this city and State. For years he stood for the highest and best in the profession. He had more influence in maintaining these high standards than any other member of the medical profession in this State. His place will be hard to fill."—*S. C. Fulmer, M. D., President, Pulaski County Medical Society, in Arkansas Gazette,* September 1, 1933.

"The passing of Dr. Bathurst is a shock to the entire medical profession in Arkansas. The loss to the Arkansas Medical Society is greater than words can express. His activities in organized medicine extended nationally, having been president of the Southern Medical Association. No one will miss his counsel more than I."—*Dr. L. J. Kosminsky in Arkansas Gazette* September 1, 1933.

"Dr. Bathurst has been a valuable member of the Missouri Pacific Hospital staff here for over 20 years, and his place will be hard to fill, not only at the hospital but in organized medicine throughout the State. He stood out clearly for organized medicine at all times, and probably more than any other man in the State, accomplished more for its advancement. He was pre-eminent in the profession and his honors were many by the county and State associations and the Southern Medical and American Medical Associations."—*W. F. Smith, M. D., in Arkansas Gazette,* September 1, 1933.

With deep regret the Southern Medical Association learns of the death of one of its best known members, Dr. William Ray Bathurst, of Little Rock, Arkansas. Dr. Bathurst served as a member of the Council from 1917 to 1925; as Chairman of the Council in 1925; as President of the Association in 1928, having been elected in 1927; and as a Trustee from 1928 until his death. During his tenure of these several offices he led his professional associates in many policies for the advancement of Southern medicine and medical education.

He was a dermatologist and radiologist of wide reputation, a man of progressive ideals, and of kindliness and generosity, who spent a large part of his waking energy in unremunerated service to his profession. Among many other activities, he was Secretary of the Arkansas State Medical Association and Editor of its Journal from 1919 until his death; the large membership in the State society and the solidarity of the physicians of Arkansas testify to his powers of organization. On Wednesday, August 30, he complained of feeling badly and absented himself from his office. On August 31 he was found dead in bed at his home, having succumbed in his sleep to heart disease.

Of vigorous personality, a comparatively young man with years of expectation of health and medical productiveness, his death will be a severe loss to his many friends throughout the South.

—*Southern Medical Journal, Oct.,* 1933.

A TRIBUTE TO DR. WILLIAM R. BATHURST

The death of Dr. William R. Bathurst has taken away from Trinity Cathedral one of its outstanding members. His passing is a distinct loss not only to the Medical Association and to the city of Little Rock but particularly to Trinity Cathedral.

Dr. Bathurst has served for more than twenty years as a member of the Cathedral Chapter and his great interest and wise council will be hard to replace. Always a gentleman, he was very modest and retiring regarding his own achievements and never gave any hint of the tremendous amount of work he accomplished or the wise counsel and great help he rendered to so many.

The writer will not soon forget the intimate discussions, the kindly advice, encour-

agement and help in so many ways during the seven years he had the pleasure of knowing Dr. Bathurst, particularly in connection with Trinity Cathedral and Rotary.

He was an enthusiastic worker and he had the knack of bringing his work to a successful conclusion. His loss is and will continue to be keenly felt by so many, but by none more than the writer.

May his soul rest in peace and light eternal shine upon him.

John Williamson,
Dean, Trinity Cathedral,
Little Rock, Arkansas.

Dear Mrs. Bathurst:

The Silent Reaper of time has again invaded our ranks and we members of the Tenth Counsilor District Medical Society find ourselves shocked and grieved over our departed brother, Dr. William R. Bathurst, who has passed into the silent bourne but whose memory is still enshrined in our hearts. No words of sympathy or condolence are adequate to silence your grief but you can in a great measure be consoled through the fact that he has rendered notable and faithful service in positions of honor and distinction.

Through his skill he has alleviated human suffering and by his self-sacrificing devotion to organized medicine he has reared a monument that the eroding influence of time cannot efface.

We will not again see his wholesome smile or hear his voice in the corridors of time, but our society will ever hold him in the tenderest recollection and his friendship will always be treasured in memory's casket.

May He who doeth all things well comfort and shield you and bestow upon you His choicest blessings.

Will H. Mock, M. D.,
Chairman of Committee.

Correspondence

The Arkansas Medical Society:

My dear Doctors:

We are profoundly grateful for your kind expressions of sympathy at this time of our great sorrow. Organized medicine was very near Doctor Bathurst's heart and I want you to know that we shall always be interested in your medical society.

Mrs. Wm. R. Bathurst,
Billy Bathurst.

Personal and News Items

Dr. Ewell I. Thompson has opened an office at 531 Donaghey Building, Little Rock, for the practice of dermatology.

Dr. and Mrs. L. M. Henry, Fort Smith, announce the birth of a son on September 24, 1933.

Dr. S. J. Wolfermann, Fort Smith, who suffered a fracture of a lumbar vertebra on September 3rd, is making a satisfactory convaleseence at his home.

Visitors to The Century of Progress at Chicago for Arkansas Day in October included Dr. and Mrs. D. B. Stough, C. S. Moss and Leonard Ellis of Hot Springs National Park.

Dr. R. Q. Patterson has moved his offices from the Boyle Building to 213 West Second Street, Little Rock. Mrs. Anna W. Phillips, for many years with Dr. Bathurst, will be associated with Dr. Patterson in his new location.

The following physicians were in attendance at the Fall Clinical Conference of the Kansas City Southwest Clinical Society: J. H. Fowler, Harrison, H. J. G. Koobs, Rogers; J. J. Morrow, Cotter; D. L. Owens, Harrison and D. A. Rhinehart, Little Rock.

Dr. D. A. Rhinehart, Little Rock, appeared on the program of the eleventh annual Fall Clinical Conference of the Kansas City Southwest Clinical Society, October 4, 1933, as one of four speakers invited from neighboring states, an innovation at this year's conference. Dr. Rhinehart's subject was "Gas Producing Infection in Civil Practice with Special Emphasis on Early Diagnosis by *X*-ray Examination."

The following physicians were in attendance at the Clinical Congress of Surgeons at Chicago: Hoyt Allen, H. Fay H. Jones, Paul Mahoney, George Lewis, Pat Murphey, W. F. Smith, J. H. Sanderlin and J. F. Shuffield, of Little Rock; Decker Smith, Texarkana; R. L. Smith, Russellville; L. L. Purifoy, El Dorado; J. A. Foltz and C. S. Holt, of Fort Smith.

THE JOURNAL
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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Editorials

Appropriately, this issue of The Journal is dedicated to the memory of the man who edited it for the past fourteen years, under whose influence and enthusiastic, efficient management it has become one of the leading medical periodicals of the South. He gave freely of his time and energy to the broadening of its scope of value and interest to the physicians of Arkansas. Its editorials were the expressions of his clear-thinking intellect and were ever intended to advance the cause of organized medicine in Arkansas. His foresight and demonstrated ability for the solution of the many problems confronting the Arkansas Medical Society were regularly reflected in its columns. No just cause but what found a champion in him; firm and unrelenting in the judgments which he conceived to be right, yet kindly and charitable to those with another point of view. He was a true altruist, quite willing that the credit for good work be given another, never seeking personal glory but always the betterment of the Arkansas Medical Society. Appropriate it is indeed, that the first memorial issue of this Journal be dedicated to the man who cherished and developed it to its present enviable position as an organ of organized medicine—

WILLIAM RAY BATHURST.

THE 1934 AMERICAN MEDICAL ASSOCIATION DIRECTORY

This important volume will be published in a new edition early in 1934, the first since 1931. The American Medical Association designates members of organized societies and Fellows of the Association by appropriate symbols in the listing. The majority of physicians prefer to be so designated in this directory, as indicating their interest in organized medicine. However, quite a number of members of the various county societies are now delinquent with their 1933 dues and this is to call their attention to the fact that should they remain delinquent, they will not be so identified. County secretaries are urged to make every effort to secure the dues of all delinquents in order that they may be properly listed in the directory and that their names may be published in the state roster which will appear in the November issue of The Journal.

Proceedings of Societies

The First District Councilor Medical Society met at Paragould, Arkansas, on October 18, 1933, for the fall session of the organization. The following program was presented:

"Tularemia"—J. H. McCurry, Cash.

"Further Advances in Trans-Urethral Electrosurgery of the Prostate"—Julius Frischer, Kansas City, Mo.

President's Address—C. M. Harwell, Osceola.

"The Diagnosis of Pernicious Anemia, with Special Reference to Atypical Forms"—Conley Sanford, Memphis.

"Calcium Metabolism, and Its Practical Application in the Practice of Medicine"—Wm. C. Chaney, Memphis.

Officers elected were: J. T. Altman, Jonesboro, president, and Ira Ellis, Monette, vice-president. The secretary, F. D. Smith, Blytheville, serves until the spring 1934 meeting which is to be held at Jonesboro.

The Tri-County Medical Society met in dinner session at the Orlando Hotel, Camden, Arkansas, Thursday, October 5, 1933. The following program was presented:

Address—Hon. Tilman B. Parks, Camden.

"The Fracture Problem"—Dr. Willis C. Campbell, Memphis.

"The Anemias"—Dr. W. C. Chaney, Memphis.

This society is composed of members of the Union, Ouachita and Columbia County Medical Societies. Dr. R. B. Robins of Camden, Arkansas, is president, and Dr. L. A. Purifoy of El Dorado, Arkansas, is secretary.

The Twenty-fifth Annual Meeting of The Arkansas Tuberculosis Association was held in Little Rock on October 3, 1933. Two of the founders of the association were present for the session, Dr. H. Moulton and former Governor George W. Donaghey. Dr. S. C. Fulmer, Little Rock, presided over the morning session at which Dr. Esmond R. Long, Director, Phipps Institute, Philadelphia, spoke as guest speaker on "New Trends in Tuberculosis Research. Dr. C. S. Holt, Fort Smith, gave an address on "The Surgical Treatment of Tuberculosis." Dr. A. C. Shipp, Little Rock, presided as toastmaster at the founder's dinner, and at the evening session, Dr. Walter G. Eberle, Fort Smith, spoke on "Landmarks in Tuberculosis."

Over one hundred physicians were in attendance at the third clinical conference conducted by the staffs of the Leo N. Levi Memorial Hospital and the Charles Steinberg Clinic at the hospital in Hot Springs National Park, October 5th. The meeting was practical in its scope, consisting of demonstrations of the work of the clinic and of hospital cases. The guest speakers were: Major C. Elmo Dovell, M. C., U. S. A., Chief of the Surgical Service, Army and Navy General Hospital, Hot Springs National Park, who spoke on "Clinical Manifestations, Diagnosis, Differential Diagnosis of Empyema," and Dr. Ralph A. Kinsella, Professor of Internal Medicine, St. Louis University, St. Louis, Missouri, whose address at the banquet session was "Encephalitis." An interesting feature of the day's session was the opportunity afforded for inspection of the new Army and Navy Hospital.

The Third Councilor District Medical Society met at Brinkley, Arkansas, on October 19th. The following program was presented:

Invocation—Rev. John L. Riffey.

Address of Welcome—Dr. S. F. Dozier.

Response—Dr. Henry H. Rightor, Helena.

"A Classification of Heart Diseases"—Dr. S. C. Fulmer, Little Rock.

"The Successful Treatment of Biological Diseases, or Biological Therapy"—Dr. J. A. Warner, St. Louis, Mo.

"The Emotions and Their Relationship to the Glands of Internal Secretions"—Dr. Carrol C. Turner, Memphis, Tennessee.

Dinner Session.

"Practical Application of Orthopedic Principles"—Dr. Willis C. Campbell, Memphis, Tenn.

"Uterine Bleeding"—Dr. W. H. Hundling, Little Rock.

The following officers were elected: H. H. Rightor, Helena, president: T. G. Porter, Hazen, vice-president, and J. O. Rush, Forrest City, secretary. The spring 1934 meeting will be held in Helena.

The Second Councilor District Medical Society met in Batesville at the Country Club

Monday night, October 9, with S. J. Albright, presiding. The following officers were elected: S. J. Albright, Searcy, president; J. T. Matthews, Heber Springs, vice-president; O. J. T. Johnston, Batesville, secretary.

Dr. F. A. Gray presented a case of Banti's Disease which was very interesting. Others taking part on the program were:

Dr. H. A. Dishongh: "The Symptoms, Diagnosis and Treatment of Undulant Fever."

Dr. D. A. Rhinehart: "Injuries of the Wrist—Clinical Varieties, Anatomical Considerations, and *X*-ray Diagnosis." (Lantern slides.)

Dr. L. V. Parmley: "Injuries of the Wrist: Their Treatment."

Dr. R. J. Calcote: "Impaired Vision and Blindness of Children."

O. J. T. Johnston, *Secretary.*

The Benton County Medical Society met at Bentonville on October 12th for the following program given by physicians of Springfield, Missouri:

"Surgery of Pregnancy"—Joseph James.

"Diagnosis of Diseases of the Chest"—Elmer Glenn.

"Some Newer Aspects of the Etiology and Treatment of Pyloric Stenosis of Infancy"—U. J. Busiek.

"Surgery of the Upper Abdomen"—F. T. H'Doubler.

REPORT OF THE ASHLEY COUNTY MEDICAL SOCIETY MEETING, SEPTEMBER 12, 1933

The Ashley County Medical Society met as the guests of Dr. C. E. Spivey, at Crossett, in the Rose Inn. A bounteous chicken dinner was served to about 75 members and visitors from Monroe, Little Rock, El Dorado, Dermott, Bastrop and surrounding towns. Dr. Gardiner, of Bastrop, acted as toastmaster. Dr. A. M. Gibbs introduced all the visitors. After the dinner, the scientific program was held. Dr. Carruthers of Little Rock, gave a splendid paper on "Fractures" and Dr. Pat Murphey, of Little Rock, spoke on Epilepsy. Dr. Hunter of Monroe, gave a fine paper on Nephritis.

J. W. Simpson, *Secretary.*

Auxiliary Notes

Space has been allotted us in each issue of the Journal and the State Medical Auxiliary Publicity Secretary would appreciate news items from each auxiliary in the State.

Mrs. D. W. Goldstein,
Publicity Secretary, Fort Smith, Ark.

IN LOVING TRIBUTE TO DOCTOR WILLIAM RAY BATHURST

Our friend and advisor, Doctor William Ray Bathurst, has been called to the Great Beyond. We knew him but to love him. We spoke of him but to praise.

His kindliness, tinged with a sense of humor, his love of truth and fair play, and his devotion to the good of others, will ever enshrine his memory in our hearts.

The State Medical Auxiliary has lost a loyal and interested supporter; loyal in his devotion to its progress, and loyal in his faith to its ideals.

While memory bids us weep thee,
Nor thoughts or words are free,
The grief is fixed too deeply,
That mourns a man like thee.

Whereas, it has pleased God to take from us our beloved friend and advisor, William R. Bathurst; and

Whereas, his passing deprives the Auxiliary of a trusted friend and advisor, whose interest in the organization of Auxiliaries to the County Societies contributed in large measure to their successful existence;

Therefore, Be It Resolved, that we are deeply grieved in this great loss; and

Be It Further Resolved, that the Auxiliary to the Sebastian County Medical Society extend its condolence to his bereaved family by these expressions of sympathy, and that these resolutions be spread upon the minutes of the Auxiliary, and a copy sent to his sorrowing family.

Respectfully submitted,

Auxiliary to Sebastian County Medical Society
Juliette G. Moulton,
Elizabeth M. Wolfermann,
Committee.

The October meeting of the Woman's Auxiliary to the Sebastian County Medical Society was held at the home of Mrs. W. G. Eberle, with Mesdames J. W. Amis and D. W. Goldstein as co-hostesses; Mrs. Eberle, president, presiding.

There were a goodly number of members present. The meeting being the first of the season, new committees were appointed and the work outlined for the year.

The auxiliary is glad to report the addition of two new members, Mrs. B. B. Bruce of Alma and Mrs. H. W. Savery of Van Buren.

This meeting was also a memorial for Dr. Wm. R. Bathurst, Secretary of the Arkansas Medical Society and Editor of the Journal for many years, who passed away on August 31, 1933. Dr. Bathurst was a staunch supporter of the Woman's Auxiliary as well as the Arkansas Medical Society and we shall miss his leadership and advice.

Our auxiliary is also grieved at the loss of our esteemed member, Mrs. Roberta Martin Smith, wife of Dr. H. H. Smith, who was called to her eternal home on August 15, 1933. She was formerly president of the Woman's Board of Managers of Sparks Memorial Hospital and widely known in philanthropic, social and musical circles of the city. We shall miss her gracious personality, her willingness to help and her warm friendship. In her passing our auxiliary has sustained an irreparable loss.

Mrs. S. P. Stubbs, *Secretary.*

Obituary

DR. W. T. JOYNER—Dr. W. T. Joyner, aged 65, of Roswell, N. M., formerly Pulaski County Health Officer, died at his home October 13, 1933. He was born in Little Rock September 8, 1867, and was graduated from the Little Rock Medical College in 1889. He served as county health officer until 1891 when he moved to Roswell. Dr. Joyner is survived by his wife, four daughters, Gertrude, Louise, Mildred and Kathryn, all of Roswell; his father, W. J. Joyner of Little Rock; three sisters, Mrs. Clem Putnam of Redore, Minn., Mrs. Lonie Perry of Little Rock and Mrs. J. C. Emerson of Oklahoma City, Okla., and a brother, E. B. Joyner of New York.

DR. A. P. OWENS—Dr. A. P. Owens, aged 85, died October 16, 1933 at Texarkana. He was born in Scotland but came to the United States at an early age. He was a graduate of the Louisville (Ky.) Medical College and practiced medicine many years, but retired about ten years ago. He is survived by his wife; three sons, Clarence Owens of Kansas City, Paul and Carl Owens of Lockesburg, and three daughters, Mrs. C. R. Johnson and Misses Lena and Helen Owens, all of Texarkana.

EIGHTH COUNCILOR MEETING

The Eighth Councilor District Medical Society will meet in Little Rock Wednesday, November 1.

The morning session will be held at the Baptist State Hospital beginning at 9:00 a. m. Luncheon will be had at the Albert Pike Hotel at 12:30. The scientific papers of the afternoon will be:

"History of the Blood"—Dr. R. B. H. Gradwohl, St. Louis.

"Tuberculosis"—Dr. A. C. Shipp, Little Rock.

"Birth Injuries"—Dr. A. C. Kirby, Little Rock.

"The Value of the County Medical Society"—Dr. R. B. Robins, Camden.

"Experience in the Far East and Africa"—Dr. Janat Miller.

FEDERAL EMERGENCY RELIEF MEDICAL PAYMENTS

The following is furnished by The Federal Emergency Relief Administration, Washington, D. C., as a guide to physicians, relief administration offices and the public:

The following regulations, governing the provision in the home of medical care (includes "medicine, medical supplies and/or medical attendance") to persons eligible for unemployment relief, are hereby established.

1. *Policy.*—A uniform policy with regard to the provision of medical, nursing, and dental care for indigent persons in their homes, shall be made the basis of an agreement between the relief administration and the organized medical, nursing, and dental professions, State and/or local. The essence of such a policy should be:

(*a*) An agreement by the relief administration to recognize within legal and economic limitations, the traditional family and family-physician relationship in the authorization of medical care for indigent persons in their homes; the traditional physician-nurse relationship in the authorization of bed-side nursing care; the traditional dentist-patient relationship in the authorization of emergency dental care; and

(*b*) An agreement by the physician, nurse (or nursing organization), and dentist to furnish the same type of service to an indigent person as would be rendered to a private patient, but that such authorized service shall be a minimum consistent with good professional judgment, and shall be charged for at an agreed rate which makes due allowance for the conservation of relief funds.

The common aim should be the provision of good medical service at a low cost—to the mutual benefit of indigent patient, physician, nurse, dentist, and taxpayer.

The policy adopted shall be to augment and render more adequate facilities already existing in the community for the provision of medical care by the medical, nursing, and dental professions to indigent persons. It shall imply continuance in the use of hospitals, clinics, and medical, dental, and nursing services already established in the community and paid for, in whole or in part, from local and/or State funds in accordance with local statutes or charter provisions. Federal Emergency Relief Funds shall not be used in lieu of local and/or State funds to pay for these established services.

The phrase "in their homes" shall be interpreted to include office service for ambulatory patients, with the understanding that such office service shall not supplant the services of clinics already provided in the community.

2. *Procedure.*—A uniform procedure for authorization of medical nursing, and dental care in the home shall be established by each State and/or local emergency relief administration. This procedure shall not be in conflict with the following requirements:

(*a*) *Written order.*—All authorizations for medical, nursing, and dental care shall be issued in writing by the local relief officer, on the regular relief order blank, prior to giving such care; except that telephone authorization shall immediately be followed by such a written order; and provided that authorizations for bed-side nursing care shall be based on a recommendation by the attending physician, in cases where a physician is in attendance, who shall certify to the need for nursing service as part of the medical care. Authorizations for medicine and medical supplies shall also be issued in writing and, in general, such authorizations shall not be issued except upon written request of the physician authorized to attend the person for whose use they are desired.

(*b*) *Acute illness.*—Authorizations for medical care for acute illness shall be limited to a definite period and a maximum expenditure or number of visits (i. e., not more than two weeks or 10 visits), according to the standard agreement made between relief officials and physicians under regulation 1. Medical care in excess of this period shall not be authorized until after a reinvestigation of the case in the home by the local emergency relief administration.

(*c*) *Chronic illness.*—Medical care for prolonged illnesses, such as chronic asthma, chronic heart disease, chronic rheumatism, diabetes, etc., shall be authorized on an individual basis, and, in general, visits shall be limited in frequency (i. e., not more than one visit per week for a period not exceeding two or three months) by agreement. Nursing care for such chronic illnesses shall, in general, be authorized in accordance with the need for such care as indicated by the attending physician. If necessary, more frequent

visits, by the physician or nurse, for an acute attack occurring in the course of a chronic illness, may be authorized. Care for chronic illness authorized under this section shall supplement and not supersede existing community services, such as visiting nursing service or institutional care.

(*d*) *Obstetrical care.*—Authorization for obstetrical service in the home shall include an agreed minimum number of prenatal visits (where possible), delivery in the home, and necessary postnatal care. Due caution shall be exercised that this authorization for delivery in the home does not involve undue risk to the patient for whom hospital care may be imperative. The physician authorized to attend the confinement in the home shall be responsible for certifying to the local relief administration that, in his professional judgment, delivery in the home will be safe.

(*e*) *Special services.*—Medical and nursing services not covered above shall be authorized on an individual basis, subject to the general provisions of the agreement made under regulation 1. Special dental service shall be subject to a similar procedure.

Medical care shall not ordinarily be authorized by relief administrations for conditions that do not cause acute suffering, interfere with earning capacity, endanger life, or threaten some permanent new handicap that is preventable when medical care is sought.

(*f*) *Accessory services.*—Emergency dental care and bedside nursing service, for indigent persons in their homes, may be authorized subject to the existing general policy of the State and/or local relief administration.

(1) *Dental care* shall, in general, be restricted to emergency extractions and repairs. Dentists and dental care shall be subject to the same general restrictions indicated for physicians under regulation 1.

(2) *Bedside nursing care,* where authorized, shall conform to a procedure comparable to the one outlined for physicians above, and shall be provided under an agreement made between relief administrations and nursing organizations, State and/or local, under the same principles suggested for physicians under regulation 1. Standards of accredited local nursing organizations shall be followed by nurses giving authorized bedside nursing care to indigent persons in their homes. Such authorized bedside nursing care shall not supersede or supplant existing local official services giving such care under the provisions of local law.

(*g*) *Fee schedule.*—The agreement between the State and/or local relief administration and the organized professional groups of physicians, nurses, and dentists, State and/or local, established under regulation 1, shall include a fee schedule covering the basic and special services outlined in sections (*b*) to (*f*), inclusive, of this regulation. In the interests of simplified accounting it is suggested: That a flat rate be established, on a per visit basis for the usual care given to acute and chronic illness (sections (*b*) and (*c*) above), for attendance at confinement (section (*d*) above), for emergency extractions (section (*f*) above), and for a bedside nursing visit (section (*f*) above; and that all special services (medical, nursing, or dental) be covered by an agreed reduction from the usual minimum fee schedule for such services with an agreed maximum fee. A recognized differential in fee shall be established between a home and an office visit. All fees shall be established on the basis of an appreciable reduction from the prevailing minimum charges for similar services in the State and local communities, with due recognition of the certainty, simplicity and promptness of payment that authorization from the local relief administration insures.

This schedule shall only apply where the expenditure of Federal Relief Funds is involved and shall not preclude the payment of additional amounts from local funds.

Where bedside nursing care is authorized, the flat rate per visit shall be established by agreement at not to exceed the certified cost per visit established for accredited visiting nursing organizations in the State or local district.

(*h*) *Bills.*—Physicians, nurses (or nursing organizations), and dentists who are providing authorized medical care to indigent persons in their homes shall submit to the local relief official, monthly (within 10 days after the last day of the calendar month in which such medical care was provided), an itemized bill for each patient. Each bill shall be chronologically arranged and shall contain at least enough information to permit proper audit (i. e., name, age, and address of patient; general nature of illness or diagnosis; whether home or office treatment; dates of service; and status of case at end of month—cured,

sent to hospital, dead, needs further care, etc.). Bills for medical care shall be accompanied by the original written order for such care, except for cases in which medical service under an authorization has not terminated during the calendar month covered by the bill, in which cases the bill shall show, in addition to the details required above, the date and serial number of the outstanding order. Retroactive authorizations shall not be issued or honored for payment.

Bills for special and accessory services, outlined under sections (*e*) and (*f*) above, shall give full details of such services, and bills for medicines and medical supplies, under (*i*) below, shall be subject to the same general requirements. Bills for drugs shall list the name and quantity of each. The formula and number of each prescription costing more than 25 cents shall be submitted with or made a part of the pharmacist's bill.

NOTE.—The submission of bills and their audit and authorization for payment will be simplified if the State Emergency Relief Administration provides a suitable bill form.

(*i*) *Medicine and medical supplies.*—Physicians providing authorized medical care to indigent persons shall use a formulary which excludes expensive drugs where less-expensive drugs can be used with the same therapeutic effect. When expensive medication is considered essential by the authorized attending physician it may be authorized after consultation with the local medical advisory committee.

Prescriptions for necessary drugs and medicine shall be restricted to the National Formulary or the United States Pharmacopeia. To avoid excessive expenditures for remedies of unknown or doubtful value proprietary or patent medicines shall not be authorized.

State and/or local relief officials are urged to make trade agreements with pharmaceutical organizations and druggists for uniform or reduced rates for prescriptions.

Authorizations for medical supplies shall be restricted to the simplest emergency needs of the patient consistent with good medical care.

In general, authorizations for medicine and medical supplies shall not be issued except upon written request of the physician authorized to attend the person for whose use they are desired.

3. *Authority.*—The State emergency relief administration, responsible for the distribution of Federal and State Emergency Relief Funds to local relief administrations, shall give approval to such statements of policy, proposed fee schedules, and detailed procedures, governing the provision of medical, nursing, and dental care in the home to recipients of unemployment relief, as may be established by State and/or local relief administrations, in accordance with the provisions of regulations 1 and 2, above, before such policies, schedules, and procedures shall take effect. It shall be the responsibility of the State emergency relief administration to formulate a program of medical, nursing, and dental care for indigent persons in their homes, which shall not be in conflict with the provisions of regulations 1 and 2, above, and to make sure, by giving or withholding approval, that analogous programs formulated by local relief administrations shall not be in conflict with such State program.

(*a*) *State and local professional advisory committees.*—State and local relief administrations shall request the presidents of the State and local medical, nursing, dental, and pharmaceutical organizations, respectively, to designate an existing committee or appoint a special committee, to advise them in the formulation and adoption of adequate programs for medical, nursing, and dental care in the home for indigent persons. The relief administrations shall be responsible for the final adoption of such programs. The medical, nursing, dental, and pharmaceutical advisory committee can assist these administrations in maintaining proper professional standards and in enlisting the co-operation of the constituent, professional membership in such programs. Local medical, nursing, and dental programs submitted to the State relief administration for approval should be submitted to the appropriate professional advisory committee for comment, before final approval is given. The appropriate professional advisory committees should be consulted by relief administrations with regard to disputed problems of medical, nursing, and dental policy and practice.

(*b*) *Licensed practitioners of medicine and related professions.*—When a program of medical care in the home for indigent persons has been officially adopted, participation shall be open to all physicians licensed to prac-

tice medicine in the State, subject to local statutory limitations and the general policy outlined in regulation 1, above. Physicians authorized by relief officials to give medical care under this program shall have accepted, or shall be willing to accept, the regulations and restrictions inherent in such a program. In order to provide adequate medical care it may be desirable for local relief officials to maintain on a district basis a list or file of physicians in the community who have agreed in writing to comply with the officially adopted program. Such a list of physicians should also facilitate a more equitable distribution of orders for medical services.

A similar policy and procedure shall be followed in the preparation of approved lists of nurses, dentists, and pharmacists. Licensure and/or registration to practice their respective professions in the State shall be a prerequisite to approval of graduate nurses, dentists, and pharmacists for authorized participation in the officially approved State program for the provision of medical care for indigent persons in their homes.

(c) *State program for medical care to indigent persons in their homes.*—When the State emergency relief administration has adopted a uniform program for medical, nursing, and dental care for indigent persons in their homes, in accordance with these rules, a copy of such program, including the statement of policy, fee schedules, and detailed procedures, shall be filed immediately with the Federal Emergency Relief Administration.

Book Reviews

International Clinics. Vol. III, Forty-third Series, September, 1933. Published by J. P. Lippincott Co., Philadelphia, Pa.

This volume is composed of twenty different articles on subjects of current interest. A diversified selection of subjects, well covered and written most readably.

Of particular interest is that section of "Diseases of the Parathyroid Gland," which is a complete covering of the fields of hyper- and hypo-function of the parathyroid. Other articles of unusual interest are those on Agranulocytic Angina, Infectious Mononucleosis, Pellagra, two articles on Tuberculosis, and the discussion of "The Treatment of Diabetes Mellitus.

Anatomy of the Brain and Spinal Cord. By William W. Looney, A. B., M. D., Professor of Anatomy, Baylor University College of Medicine, Dallas, Texas. Cloth. Price, $4.50. Pages, 347, with 153 illustrations. Philadelphia. F. A. Davis Co., 1932.

This book is unique of its kind and is different from others of a similar title. The promises in the preface are fulfilled in the text. The book is an attempt to get away from the necessity for learning dry facts concerning the structure of the brain and spinal cord. These facts are linked with the functions of the organism in the process of adjusting itself to its environment. The anatomy and physiology of the nervous system is approached especially from the functional standpoint. The facts are stated simply and concisely.

Chapter VI on The Fiber Tracts of the Spinal Cord, while having nothing new in the way of classification, does present the tracts in a manner which enables one to visualize a pathological condition which might affect one or more of these tracts.

Chapter XX contains a series of illustrative cases with an interpretation in each case showing how the diagnosis was arrived at. This is a very valuable addition to the book.

This volume should be of interest and value to both the neurologists and those physicians who do not specialize in neurology.

Practical Treatment of Skin Diseases, with Special Reference to Technique. By Edward Ahlswede, M. D. Price, $12.00. Pp. 770, with 77 illustrations. New York. Paul B. Hoeber, Inc., 1932.

The author is a former student of Dr. Paul Unna, of Hamburg, Germany. A great deal of the data that forms the groundwork of this book has been collected during the author's assistantship under prof. Unna in the Skin Department of the Eppendorf Hospital of the Hamburg University and at his private clinic.

The foreword is written by Prof. Unna and Dr. Howard Fox. This book is divided into two parts. First, general therapeutics of cutaneous diseases, and, second, the detailed consideration of the therapy of individual diseases of the skin. There is a short description of each disease of the skin. The author emphasizes the importance of ascertaining the cause, if possible, before instituting treatment. It is a careful, complete exposition of the subject and will be found to be a valuable addition to the general practitioner as well as to the dermatologist.

The Secretary of the County Society will please notify the State Secretary immediately of any error or change in these officers.

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OF THE

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1933

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ENUCLEATION: INDICATIONS AND CONTRAINDICATIONS*

ROBERT CALDWELL, M. D., and
ROYAL J. CALCOTE, M. D.,
Little Rock

Removal of the eyeball is a common procedure; one considered perfectly safe, with complications seldom encountered, and calls for a minimum amount of surgical skill. Of much more importance is the decision as to whether an eyeball shall be sacrificed and the answer to this question is one that sorely vexes every man who must on occasion sit in judgment on such cases. There is no thought of putting forward anything especially new in this paper but to reiterate some important points in an old problem that should be of interest to us. It is our hope that a general discussion of this subject may be stimulated.

A discussion of the problem of enucleation would naturally begin with a consideration of eye injuries and sympathetic ophthalmia. W. T. Shoemaker in a paper before the Pennsylvania Medical Society very aptly stated: "If it were not for one disease, sympathetic ophthalmia, which at times menacingly threatens every surgeon who tries and wishes to save an eyeball, with the hope that perhaps it may see a little, or to satisfy the patient's desire to at least keep it, the indications for enucleation would be materially reduced." The eye specialist might well paraphrase Osler's remark and say:

> "God gave us sympathetic ophthalmia to keep us humble."

We know not why this destructive inflammation sets up in an eye from injury to its companion; we know not whether it is infectious in origin, anaphylactic in nature, or from some yet unsuspected etiology; we know not why that once it is well established in the uninjured eye, removal of the injured eye is of no avail and that our methods of treatment are frequently unable to prevent disasterous results, and an unfortunate individual faces the tragedy of blindness. We do know that certain types of injuries are more prone to be followed by this condition. It is a well known fact that perforating wounds of the eyeball through the region of the limbus or ciliary body, particularly those exposing the ciliary body to the air, furnish a large percentage of cases of sympathetic ophthalmia. It is the custom usually in all open wounds of this region to advise enucleation. In any perforating wound of the eyeball, regardless of its location, which has hopelessly destroyed sight, the eyeball should be condemned without further hearing. In cases of wounds entirely within the cornea or sclera, where extensive damage has not been done to the internal structures of the eye and recovery of some vision may be hoped for an attempt should be made to save such eyes. It is our custom after the indicated surgical procedures and proper toilet of such wounds to combat infection by local antisepsis and intramuscular milk injections. This latter procedure we feel we cannot too strongly recommend, for in the presence of actual or threatened infection its results are frequently highly gratifying and many eyes are saved that were formerly destroyed by intra-ocular infection. Other types of foreign proteins may be used but because of its easy availability, cheapness and uniformly good results we use fresh cow's milk which has been sterilized by boiling for four minutes. We inject, in an adult, 8 cc. the first day, 10 cc. the second day and skip a day, then 10 cc. on the fourth and fifth day if infection still seems imminent.

If under this regime the primary wound heals promptly and there is a minimum of

*Read before the Fifty-eighth Annual Session of the Arkansas Medical Society, held in Hot Springs National Park, May 2, 3, 4, 1933.

iris and ciliary irritation which promptly subsides, we believe there is little or no danger of sympathetic inflammation. Conversely, when iris and ciliary irritation or inflammation becomes severe and the eyeball becomes soft there is little chance of restoring useful vision, and such an eye becomes dangerous to its companion. Temporizing under such conditions should be abandoned and enucleation effected. An eye with a perforating wound of the anterior segment in which sympathetic *irritation* persists or repeatedly occurs in the fellow eye should be removed. In this connection, however, in borderline cases the slit lamp and corneal microscope may show early signs of sympathetic inflammation, and the absence of such signs, we believe, will justify delay. If sympathetic inflammation has definitely become established in a companion eye then enucleation should not be performed if there is any vision in the exciting eye, for in the end it may become the better eye.

In the case of perforating wounds with retained foreign body an attempt should be made to remove the foreign body, which if magnetic may be effected by means of a magnet, but in other types of foreign bodies is usually not accomplished without great damage and complete loss of function, and hence enucleation becomes necessary. Until recently it was held imperative to remove an eyeball containing a foreign body but it has been shown that an eyeball may retain a foreign body without trouble, retaining useful vision. The danger is not within the foreign body but within the wound of entrance. If this wound has no dangerous significance and infection or destructive inflammation does not supervene, then a policy of watchful waiting may be adopted. We have not done our duty to such patients, however, unless we explain to them fully the significance of any future inflammation, and that in such an event they should immediately place themselves under the care of one trained to pass judgment on such an eye. Within the past two years we have had under observation an eye with a minute particle of steel imbedded in the periphery of the crystalline lens with no untoward effects and retention of fairly useful vision. It may be added, however, that the lens tolerates a foreign body better than any other structure of the eyeball.

In connection with eye injuries by flying missiles no effort should be spared to establish the presence or absence of a foreign body, which in the case of metalic or opaque substances is easily determined by *X*-ray examination. Not infrequently small metalic particles flying at great speed perforate the eyeball and the wound of entrance may go undetected. In any doubtful case the *X*-ray should be resorted to. Within the past few months we have seen two cases with retained particles of steel of four weeks and six months respectively; with destructive inflammation supervening and that were not suspected of harboring a foreign body at the time of first-aid treatment elsewhere. One of these cases was a man's only remaining eye, the other having been previously lost because of an accident, and it was necessary to remove a hopelessly blind eye because of pain. The other case had retained useful vision for about five months from the time of the accident until a destructive uveitis set in and he refused any surgical interference.

In all cases where panophthalmitis develops enucleation should follow but surgeons differ considerably as to the advisability of operating during the acute stages of this condition. Some men prefer to eviscerate the eyeball in such cases but this is not without danger of being followed by sympathetic inflammation, and the average surgical results after enucleation being about equal we have adopted this safer procedure. We do not hesitate to remove a globe during the acute stages of panophthalmitis, and in fact, think it is in sound accord with surgical principles in handling suppurative processes elsewhere in the body. It removes the infected focus if the sepsis has not broken through the coats of the eyeball and provides free drainage if it has. We have never seen a case of meningitis after removal of such an eye. This is a possible danger but we believe is just as much a danger without surgical interference.

Another condition that renders removal of the eyeball imperative is the presence of a tumor in the vitreous chamber. Such a tumor should be assumed to be a sarcoma in an adult until proven otherwise, and in young children it is more likely to be a glioma. In the case of sarcoma, two of our members, Drs. H. Moulton and E. C. Moulton, in a paper presented before the Section of Ophthalmology of the American Medical Association last year so ably pointed out that these malignant growths must be diagnosed and operated on early to

offer the patient his best prospects of life, and that metatasis may occur after the earliest enucleation. These cases are all highly malignant and metastasize freely. Our experience in a small number of cases corresponds with their published results. We do not intend to go into the diagnosis of this condition except to state that in the first stages, when a tumor or retinal detachment can be seen sarcoma is always suspected, while in the second stages the diagnosis is always clothed in doubt. In all inflammatory glaucomatous eyes where the onset has been gradual, without remissions, with a history of antecedent poor vision, and a tension not amenable to mioties, the presence of an intraocular sarcoma should be considered as a possibility.

An epithelioma of the conjunctiva seen very early may be removed and the eyeball saved but if the globe is involved enucleation is indicated. A malignant tumor growing from any part of the eyeball furnishes an indication for enucleation regardless of the visual status. Surgical removal of these followed by irridiation may show good immediate results but the chances of recurrence or metastasis are too great to allow temporizing. In cases of non-inflammatory unilateral exophthalmos an orbital tumor is usually the cause, most frequently sarcoma. The progressive character of this condition with elimination of other causes helps to establish a diagnosis, and not only enucleation, but complete evisceration of the orbit should follow. We had occasion recently to eviscerate an orbit in a colored girl with an endothelioma arising from the optic nerve. This, however, soon metastasized to the brain and death ensued.

Glaucoma is another condition that not infrequently leads to enucleation. In absolute glaucoma with a totally blind eye immediate relief can be obtained by removal of the globe, but for cosmetic reasons an attempt should first be made to save the eyeball by an iridectomy or some of the operations designed to produce a filtering scar.

Cases of chronic iridocyclitis which are quite blind or do not promise useful vision should be removed. This is especially true if the eyeball is soft, or has repeated flare-ups of acute inflammation and pain. Such an eye can never be anything but a source of discomfort to the patient. Cases of anterior staphyloma furnish an indication for enucleation. Such cases are usually very unsightly, and an enucleation properly performed plus some of the forms of implantation within Tenon's capsule will allow the wearing of an artificial eye with pleasing results.

As to the substitutes for enucleation, such as evisceration of the eyeball with or without implantation of an artificial vitreous, we have had no experience, and believe that these procedures have little or no place in ophthalmic practice since such satisfactory results can be obtained by the more simple and safer procedure of enucleation with implantation in Tenon's capsule of one of the various materials which in different hands have been found satisfactory. It has been our custom in cases where the orbital tissues were in healthy condition to permit to implant a glass ball which is retained in Tenon's capsule by a purse string suture over all of which the conjunctiva is separately sutured.

DISCUSSION

DR. O. H. KING, Hot Springs National Park: It was with pleasure that I accepted the honor of discussing Dr. Caldwell's paper. I have the highest regard for the essayist's ability in his chosen field. He was the first one to direct me along the path leading to the specialty of ophthalmology and otolaryngology. I have enjoyed the presentation of this subject, and I want to compliment Dr. Caldwell. In my discussion I shall attempt to stress a few of the points he made, and also report a case that emphasizes one of them.

I do not remember having heard a paper on this subject at any medical meeting I have attended. Yet it is a very important question. From the standpoint of operation I cannot say that a simple enucleation is difficult. But there is no operation performed that requires more good surgical judgment in deciding when the operation is indicated. Many surgical procedures are decided upon a basis of functional derangement, and the effect it may have upon the general health. This question always presents itself when an enucleation of an eyeball is in question. In addition, we have to weigh the question of whether any useful sight can be saved. Then there is another important phase, "Danger to the other eye." The most important phase of all, from the patient's viewpoint, is the cosmetic effect. An artificial leg may look, function like a normal one; an artificial dental plate may even work better than the original and quite frequently has a much more pleasing cosmetic effect, but an artificial eye is void of function, and is never as good as the original, from a cosmetic viewpoint.

Aside from the patient's feeling about the cosmetic result is the stern reality of a sympathetic ophthalmia. Dr. Caldwell has covered this point so thoroughly that I can only call attention to the importance of it. There is nothing more likely to make us humble than a case of sympathetic ophthalmia. I believe it better to err on the side of removing an eyeball that might perhaps be saved, than in trying to save one and run too great a risk of a sympathetic inflammation: Injuries and inflammations involving the ciliary body are always to be given the benefit of the

doubt, and the offending eye should be removed before a sympathetic inflammation can occur. In these cases the saying "Better be safe than sorry" cannot be stressed too much.

I agree with Dr. Caldwell in his statement regarding operating during the acute stages of a panophthalmitis. I have never hesitated to enucleate under these circumstances, and I believe it is the exercise of good surgical judgment.

The presence of intraocular tumor calls for enucleation, if syphilis has been ruled out. Even if the tumor is benign, there is usually a blind eye that will later develop a secondary glaucoma.

In children with intraocular tumor early enucleation is very important. A case to the point:

A child six years of age was brought to the Levi Clinic by its parents. There was no complaint on the child's part. The parents stated that for about three weeks one eye did not "look right." Examination revealed a blind eye in an otherwise normal child. An intraocular tumor was suspected, and enucleation advised. This was done, and the orbital contents removed. Three weeks after dismissal from the hospital the child returned with a definite mass in the orbit. Dr. Lee, pathologist, reported on the eyeball, melanotic sarcoma. The orbital mass was removed, with every effort to clean the orbit thoroughly. Unfortunately, the patient died six weeks later from a metastasis to the liver. Here is a case that perhaps could have been saved had the diagnosis been made earlier. It is most important that all cases of blindness be seen early by one competent to make a diagnosis.

When enucleation is necessary in a child, it is my opinion that every effort be made to have a socket that can wear an artificial eye with comfort. Children do not realize the importance of wearing the eye. The cosmetic feature does not enter the picture. If an artificial eye is not worn, scar will interfere with the socket, and there will be a lack of proper symmetrical development of the face.

Dr. Caldwell has brought to our attention an important question. It is the duty of every general physician to give his eye cases the benefit of the very best judgment he can obtain.

I thank you.

DR. E. C. MOULTON, Fort Smith: Yesterday you heard a paper on the Tragedies of Surgery. I think one of the greatest tragedies in surgery I every heard of was a case that occurred in Canada a few years ago, in which a patient was taken from the ward to the operation room to have his eye removed. When he got back to his ward and had awakened, he was quite perturbed because the wrong eye had been removed.

Now, perhaps, the next greatest tragedy that can occur in surgery, to my way of looking at it, is the case of sympathetic opthalmia which isn't recognized in time and is allowed to go on until blindness ensues in both eyes because, as Dr. Caldwell has said, once a person's eye begins to sympathize it is too late, it's gone. Of course, there are things we can do, such as using strong doses of sodium salicylate and foreign protein. Dr. Caldwell mentioned boiled whole cow's milk. I like very well the intravenous use of typhoid vaccine in doses of 35 to 50 million. That produces a good reaction and increased leukocytosis.

I want to differ with Dr. Caldwell a little bit in regard to the enucleation of an eye with panophthalmitis, and I will tell you why. It is probably purely personal, but the first eye operation I ever did was in the Massachusetts Charitable Eye and Ear Infirmary in Boston under the direction of Dr. Frederick H. Verhoeff, a very eminent surgeon. He had a case of pneumococcic corneal ulcer which got beyond control and perforated, producing a pneumococcic panophthalmitis. At his direction I removed that eye. As I say, the first ophthalmic patient in my career. Four days later this old lady died of pneumococcic meningitis. So, ever since then I have been slow to enter into an enucleation during the acute stage of panophthalmitis.

DR. H. MOULTON, Fort Smith: I enjoyed Dr. Caldwell's paper very much. While he was speaking of enucleation in cases of panophthalmitis, I thought of a case which has some bearing on the advisability of enucleation in panophthalmitis. Dr. Everett Moulton has just told you he is afraid of that operation of enucleation, in cases of panophthalmitis. I have noticed that ever since he has been with me.

In the case of traumatic panophthalmitis, one where the infection is following a perforating injury to the eyeball, I personally have always done an enucleation with the exception of one case and I am sorry I didn't do it in that one. That was the case of a young man, a miner, who was digging coal. He had a large destructive perforating injury of his eye. At the time he was brought to me, panophthalmitis had already developed. I explained to him and his father, who was a physician, the choice between enucleation and evisceration and the dangers of each. Evisceration was done instead of enucleation and in a few days he developed a classic sympathetic iridocyclitis in the other eye. He immediately was put upon large doses of salicylate of soda. This young man weighed 170 lbs. and during 12 hours of each day he was given a total of 170 gr. of salicylate of soda. This is the plan of Gifford. Of course, atropin was used. Gradually the iridocyclitis subsided and the man recoverd with useful vision. It is one of the few cases in which sympathetic ophthalmia does recover. I think more of them recover under that line of treatment than any other, but it is a terrible risk.

I think that, in spite of the experience of Dr. Everett Moulton at the Massachusetts Charitable Eye and Ear hospital in panophthalmitis resulting from a perforating injury of the eyeball, enucleation would be preferable to evisceration. In the cases of panophthalmitis resulting from a perforating corneal ulcer, I think I would be as afraid of enucleation as Dr. Everett Moulton is.

I thank Dr. Caldwell very much for his paper.

DR. K. W. COSGROVE, Little Rock: I want to compliment Dr. Caldwell on his paper, and Dr. King on his discussion. Dr. King said to me beforehand they were not going to leave anything to be said and what Dr. Caldwell didn't cover, he would cover. It seems they didn't leave much to be said.

The removal of the eye is probably one of the most disturbing things that the ophthalmologist has to do. The patient does not want to lose his eye. If they have sight or even slight vision, they will argue against it, and you can't blame them. However, it becomes frequently necessary for us to persuade our patient to have the eye removed, as Dr. Caldwell has pointed out, to save the other eye.

There is one particular type of eye which to me is very important when the question of enucleation is brought up; that is, the soft eye, the eye following injury or following iridocyclitis, in which the intraocular pressure is decreased,

where it is softer than the other. That eye is the one, according to Gifford, that is dangerous to the other eye and should be removed. Not only that, but it will be an unsightly eye if it is not already, and should be removed. I have always followed a certain axiom, which does not always apply, but if you take it in its broad sense, it does. That axiom is the last thing that you can do to an eye is to remove it; therefore, that should be the last thing that you should consider.

DR. CALCOTE, in closing: Fortunately sympathetic ophthalmia is not of frequent occurrence. The chief reason it is not is because the precautions which have been mentioned in these discussions today are generally observed. We must not forget however that it is a real menace. At the Arkansas School for the Blind, where it has been my privilege to serve as consulting ophthalmologist for the past seven years, there are eleven children out of a total of 130, who according to the best histories I can obtain, are there because of this condition. That is, almost 9 per cent of the children at this institution, have been doomed to a life of blindness probably because of the lack of proper attention or enucleation of an injured eye. This year out of 21 new admissions two were for this condition. We must not forget also that the younger the patient the more likely is sympathetic ophthalmia to develop.

By far the greatest number of enucleations we do are the direct result of or immediately follow recent injury, but in reviewing the last 30 cases of enucleation we have done for conditions other than recent injury, I find four cases of absolute glaucoma. One of these had previously had a corneo-scleral trephine without relief, and one was possibly secondary to thrombosis of the central vessels. There were five cases of phthisis bulbi with recurring attacks of inflammation and pain. Three of these were the late results of injury and two with chronic iridocyclitis, cause undetermined. There were four other cases of chronic iridocyclitis, not phthisical, and one of which was in a highly myopic individual with old choroiditis in the other eye. There were three cases of anterior staphyloma, all the results of ophthalmia neonatorium. There were five cases of chronic ulcerative keratitis and acute purulent iridocyclitis. One of these was secondary to a lagophthalmos from extensive contraction of the lower lid in an old scar of injury on the cheek. Another was a corneal ulcer developing on the site of an old scar from injury, and a third was secondary to trachoma with extensive pannus. Two were from causes undetermined. There were three cases with iris bombe, traumatic cataracts, and secondary glaucoma developing remotely from perforating wounds of the cornea. There were two cases of intraocular sarcoma, one of glioma and one of epithelioma involving the cornea. There was one case of bupthalmos and chronic iridocylitis, cause undetermined and one case with dislocation of the lens, secondary iridocyclitis and secondary glaucoma from an old contusion.

Original Article

FORCEPS: THEIR INDICATIONS, CONTRAINDICATIONS, USES AND ABUSES*

George Kirby Sims, B. Sc., M. D., Harrison

The obstetrical forceps is an instrument designed for application to the fetal head and for the extraction of the product of conception from the maternal passages without injury to either the mother or the child, thereby obviously replacing the propulsive push of the maternal powers, both voluntary and involuntary, by a pulling effect.

The progress and termination of labor, in all but a few cases, are physiologic acts or processes and require no interference. This does not alter the fact, however, that *every confinement*, particularly that *of primiparae, should be conducted as* though it were an *emergency, major, surgical operation;* for how often we find an individual who must have aid in her delivery. More than that even, we know of those whose lives have been lost, both mother and baby, because in some way, the necessary assistance was not rendered at the proper moment. It was for the need of this very small group of women that this branch of medicine, obstetrics, which deals with the complications of pregnancy and labor came into the realm of the specialties.

Practitioners of earlier generations, satisfied as they were in permitting normal confinements to follow their own natural course, concerned themselves with pathological labors only. Beginning with the era of Semmelweis, however, the obstetrician became an obstetric surgeon and this field of medicine has, from decade to decade, plumed itself more and more with surgical regalia. Unfortunately though, while this was intended for the good of both the mother and the baby, the trend has resulted in a maldirected increase in the frequency of operative procedures. And while there is much to be said in behalf of the use of *forceps,* whether as a prophylactic measure or on actual indications, it cannot be denied, at least, *in the hands of the unskilled,* they *may be, and frequently are, responsible for many birth injuries.*

*Read before the Fifty-eighth Annual Session of the Arkansas Medical Society, held in Hot Springs National Park, May 2, 3, 4, 1933.

From the title of this paper it may be asasumed that it will be devoted to a more or less formal discussion of certain, definite principles in the use of forceps; principles which have justified themselves through the experience of numerous obstetrical men. *The intelligent use of these instruments,* of necessity, *demands more than mere deftness* in their manipulation. *One must have* definite *knowledge of the capacity and limitation of the female pelvis.* It may be permissible to omit pelvic mensuration in multiparae, provided they give a history of an uneventful labor. But it must be remembered that *the pelvis of a primipara is an unknown quantity and,* as such *should be* carefully *measured and evaluated before permitting the patient to* go into *labor,* much less to apply forceps in the absence of such proeedure.

In the strictest sense of the term, the forceps is not a rotator and may not be used to turn or twist the fetal head from one pelvic plane to another, because of injury that may be done to maternal soft parts, as separating the vagina from its pelvic attachments or tearing into the bladder. But, *under certain conditions* and *with a certain type of forceps in the hands of one trained in the art* of using these instruments, *rotation with horizontal traction may be made.* This movement, as may be seen, is a turbinal or spiral one and differs very materially from the simple circular movement, as may be visualized in ordinary rotation in the absence of traction. Obviously then, certain conditions must be fulfilled before any attempt may be undertaken in the application of forceps. One should know, therefore, that:

1. The cervix should be fully dilated and effaced.
2. The membranes must be ruptured.
3. The rectum and the bladder are to be completely emptied.
4. The diameters of the passages should be sufficient to permit the delivery of the unmutilated child.
5. The fetus should be living.
6. The presentation is correct.
7. The head must be engaged and not too large nor too small.

Doctor De Lee, one of the deans of American obstetries and obstetricians, says that "Watchful Expectancy" should still be the guide for the general practitioner in his conduct of labors; that he should *interfere only in the presence of immediate or prospective danger to the mother or the baby.* There must then, be proper and accepted indications for the application of forceps. These indications are those pertaining to the welfare of the mother and those for the welfare of the baby and are designated as maternal and fetal.

Of the indications on the part of the mother the *primary cause* may be referred to as (I) *Insufficiency of the powers,* which is brought about by a multitude of factors, such as those attributed to weak pains, usually the result of twins, polyhydramnios, maldevelopment of the uterus with deficient innervation of its musculature, tumors of the uterine wall or some inflammatory condition of the organ. The *most important secondary cause* is that of *prolonged labor,* bringing about exhaustion of the mother, especially in those individuals in whom we encounter rigid, unyielding soft parts or where there is a disproportion between the fetal head and the bone pelvis. (II) *Deep transverse arrest* is not an infrequent indication for forceps, since a posterior occiput may fail to rotate further toward the anterior than the transverse plane. (III) There are certain other conditions, as the *toxemias of pregnancy;* for example the acute febrile disturbances including pneumonia, typhoid fever and influenza, also the thyrotoxicoses of pregnancy, as well as such chronic conditions as the diseases of the heart, tuberculosis, hernia and certain types of placenta praevia, which may jeopardize the life of the parturient and call for forceps operation (or version) in order that the labor may not be unnecessarily prolonged. And last, but by no means least, is (IV) the *after-coming head* of *breech presentations,* occasionally requiring a forceps extraction.

It is not an unusual occurrence that fetal distress, as in *threatened asphyxia,* in some instances due to cerebral compression and manifesting itself by sudden, quick, fetal movements in utero and accompanied by rapid fetal heart tones; *compression of the cord,* giving rise to fetal heart tones that are irregular both as to rhythm and volume; and *narcosis,* in which the fetal heart tones are markedly slow, *shall each require immediate interference* in order to preserve the life of the baby. There also, is *abruptio placentae,* in which condition the fetal heart tones would

be conspicuous on account of their absence and the life of both the mother and the child tragically jeopardized, which *requires radical and immediate interference;* though, in order to save the life of either the mother or the child, this condition more frequently calls for a speedy section rather than a forceps application.

It is not enough, however, merely to know when, and or how, to apply forceps. One must be just as keenly alert in realizing their *contra-indications.* It would not be permissible to apply these instruments to an hydrocephalus. The blades are too likely to slip from the head. One should not attempt a forceps delivery of a dead fetus unless the head is resting upon the perineum. *A contracted pelvis,* especially one in which the conjugata vera is 9 centimeters or less, is a contraindication for forceps application because of the obvious disproportion between the smallest diameter of the fetal head and the bony birth canal; in which instance, of course, an abdominal section would be the delivery par excellence. But it is those cases designated as *border-line pelves* in which one "meets his Waterloo." It is these cases which contribute so markedly in building up our fetal mortality rate. It is, *plainly,* just *such cases* which *require finesse in diagnosis* as well as the keenest obstetrical judgment, since the application of forceps in such instances may result not only in intracranial injury with its attending circumstances, sometimes even causing the loss of the life of the child; but in traumatizing maternal soft parts unnecessarily if not to such an extent that the mother becomes an invalid. While a persistent occipito-posterior position does require interference, one may not apply forceps in this position unless he anticipates dragging the head not over, but through the mutilated perineum.

Traction upon the blades *must* be made, as nearly as possible, to *simulate* uterine contractions. Further, if one may, traction should be made synchronously with these contractions. To use a musical phrase which so completely expresses the idea to be conveyed, one should *strive to exert a pull* that is *comparable to a combined crescendo and diminuendo.* To clarify the expression, if you please, this force should be applied with a gradual, but increasing pull from its beginning and lasting for about one minute; then, holding at this point for a similar length of time. The descent or release in traction is made gradually as was the ease in the ascent of the maneuver. At the end of this and similar periods of traction, the blades should be slightly separated and cognizance taken of the rate, the rhythm and the volume of *the fetal heart tones* which are the signals of distress on the part of the infant. Of course it is pre-supposed that the fetal heart tones have been auscultated not only before application of the forceps but during the process of locking them, as well as following their release, even before traction has been made upon the instrument. Someone has very pertinently said, "It should always be borne in mind that in a forceps delivery the child's brain is as though the accoucher held it within the grasp of a powerful vise." How necessary, therefore, that exceptional care and gentleness be practiced in this procedure!

It would be scarcely possible to do justice to this subject without referring to the so-called "*Prophylactic Forceps*" of De Lee, which is simply a judicious application of the instrument at the time the fetal head reaches the pelvic floor. The delivery is accomplished in this manner in order to save the mother hours of unnecessary suffering. The procedure is practically routine with Doctor De Lee in his care of primiparous patients. And *in the hand of one properly trained* in the art of obstetrics it *can be used to excellent advantage* not only *in preserving the energy of the mother,* thereby adding to her recuperative forces for the puerperium, but *in the prevention of injury to the child,* especially in a long drawn out second stage.

A few words said here relative to the manner in which interference should be rendered is by no means mal apropos; for, in the application of *these instruments* it should be borne in mind that they *should be used artfully and skillfully* rather than with strength. In my association with Doctor De Lee in the delivery rooms of the Chicago Lying-In Hospital I have yet to see him apply forceps, or even in his observation of another in their application that he did not point out or refer to the Latin phrases: "*Primum nil Nocere*" (In the first place do no harm) and "*Non vi, sed arte,*" (Not strength, but art) which are printed in large, raised letters on bronze tablets and posted conspicuously in each of the

delivery rooms of this institution. He refers to these phrases in praetieally every labor he attends. He has so instilled their importanee into the minds of his students that they are practieed to the letter by almost every individual whom he has trained in the obstetric art. In my opinion *these two ideas* are among the first requisites that *should be acquired by* or instilled into the mind of, *one who expects to devote his attention to labor cases* in the course of his professional activity.

Since we have observed the indieations and the eontraindications for the applieation of foreeps and have discussed, in the definition of the instruments, their use, one should not have to distort his imagination to any conceivable degree whatever, in order to enable himself to visualize how sueh instruments may be misused and sometimes abused and, or how, such misuse or abuse may contribute to the morbidity and even to the mortality rate of both the mother and the baby.

Those of us who pride ourselves in the repair of birth canal laeerations will find that in some cases we shall have to be 'indebted' to someone who must have failed to recognize a faee, a brow, a posterior oeciput or probably an instanee of spatial disproportion between the diameters of the birth eanal and those of the fetal head and pulled the product of conception through, rather than over the perineum. And how frequently have we observed that cervical and broad ligament tears, along with other injuries of the genital tract, as well as the frightfully distressing train of symptoms which trail along after these traumatisms, all contributing more or less to a lifelong morbidity, are the result either of misdirected interference, or an unfortunate lack of an opportunity to interfere at all!

Lastly, yet eertainly, one must *consider the choice of instrument* with which he has *chosen to associate in his work*, for eaeh has its place. On aeeount of its short eurve, the Naegele forceps is probably the most ideal for outlet application. But for general use, both for low and for mid positions, the De Lee-Simpson foreeps undoubtedly fills the need to better satisfaetion than any other instrument. The Kielland forceps, which was originally designed for the non-engaged head, permits cephalic application in any position or level in the birth canal and, has, thereby gained great favor with many obstetricians. It is not, however, an instrument that may be used with the same abandon by the general praetitioner as either the Naegele or the De Lee-Simpson instrument. As to eomment upon the axis traetion foreeps of Tarnier, whieh was devised partieularly for application to the "floating head," it is as well that it be omitted, exeept to say that it has long been eonsidered lapsus artis to apply foreeps to this type of obstetrie case, exeept under eertain particular eonditions. For, today, as is well known throughout obstetrie circles, if a head refuses to beeome engaged, we do a cesarean seetion rather than attempt the applieation of forceps.

SUMMARY

1. Every confinement, particularly that of primiparae, should be conducted as though it were an emergency, major, surgical operation.
2. The female pelvis is an unknown quantity and one should, therefore, have definite knowledge of its capacity and limitation.
3. In considering the application of forceps one must, of necessity, be positive of his diagnosis of position.
4. It is the borderline pelvic case which requires finesse in diagnosis, as well as the keenest obstetrical judgment.
5. There must be definite indication before attempting to interfere in any case in labor.
6. Obviously, one dare not be unaware of the contraindications for the application of forceps.
7. The conditions must be fulfilled.
8. The De Lee-Simpson forceps is probably the most acceptable and best adaptable instrument for general use.
9. Traction should simulate, and as nearly as possible be synchronous with, intermittent uterine contractions.
10. Misapplication of forceps and maldirection of their use have resulted not only in birth canal injuries, but in injuries to the child.
11. Following the application of these instruments it must be borne in mind that traction should be made artfully and skillfully, rather than with strength.
12. It should be recalled that between the blades of the forceps the child's brain is as though it were held within the grasp of a powerful vise.

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Original Article

A MAJOR SURGICAL OPERATION ON A CASE OF MYASTHENIA GRAVIS*

Geo. B. Fletcher, M. D., F. A. C. P. and
J. S. Stell, M. D.
Hot Springs National Park, Ark.

After carefully reviewing the literature on the subject of myasthenia gravis we have been unable to find a case recorded upon whom a major surgical operation has been performed, therefore we believe it would be of interest to have this case made a matter of record. In as brief a manner as possible we shall outline the history of the patient's illness.

Mrs. G. W. D., 35 years of age, gave birth to her third child three years ago. The delivery was a low forceps one. Shortly afterwards she noticed some weakness of the right hand and arm and there later developed mask-like facies; typical muscular weakness, especially toward the end of the day; mild ophthalmoplegia; difficult deglutition; huskiness of the voice and what she refers to as occasional asthmatic symptoms, which as a matter of fact were probably due to involvement of the respiratory muscles. In going over the literature it was found that quite a number of cases of myasthenia gravis have been reported as developing during conception. Upon the belief that this patient might have a brain tumor she was sent by her home physician to Dr. Chas. H. Frazier of Philadelphia who ruled out brain tumor and referred her to Dr. Wm. G. Spiller who made the diagnosis. Dr. Spiller placed her on ephedrine sulphate 3-8 gr. twice daily and she showed marked improvement.

The patient came under our attention on April 14, 1933, stating that she was much better than when she began the use of ephedrine sulphate, but still had difficulty toward the end of the day, especially in swallowing, talking and in the use of the larger groups of muscles. There was a tendency for mucus to accumulate in the throat and she was unable to entirely close the eye lids; there was a mask-like expression, inability to whistle and in smiling, a tendency for the corners of the mouth to turn upward. There was considerable weakness of the right arm and hand, power being 30 Kg. right, 65 Kg. left, the weakness being especially on the ulnar side of the hand, giving somewhat the appearance of the so-called "Benediction Hand." The right mid-arm was about one-half inch smaller than the left, other physical findings were unimportant with the exception of the pelvic examination, which showed the uterus to be in a state of rather marked retroflexion and the cervix showed a deep "alligator mouth-like" tear. The vaginal canal showed a tear and she complained of marked vaginal discharge, which had not been controlled by any type of treatment.

On May first, Dr. J. S. Stell, under spinal anesthesia did a hysterectomy through an abdominal incision and intended to repair the vaginal tear, but it was thought advisable to not subject her to more than the hysterectomy at this time. She went through the operation well and her ephedrine was increased temporarily to 3-8 gr., three times daily. Dr. Stell states that he has never operated upon a patient who seemed to respond so favorably following a major operation of this type. On May 12 we began the use of glycin gm. 15, twice daily. Convalescence was uneventful and on May 23rd, the Hot Springs thermal baths were resumed, and in spite of the fact that most of the writings on myasthenia gravis do not recommend the use of hot baths, this patient feels that the thermal baths, together with a salt glow before the shower, are most helpful; in fact, she was quite anxious to resume the baths as soon as possible following the operation.

We feel that the patient withstood the operation better than many persons have done who had no such complicating illness. She is no longer complaining of the so-called asthmatic attacks and feels that these began to disappear shortly after she began the ingestion of glycin. Similarly, the tendency for mucus to accumulate in the throat is not so much in evidence. The vaginal discharge has almost disappeared, but Dr. Stell intends later to do the repair work.

Dr. Harriet Edgeworth of Tucson, Arizona, to whom credit for the discovery of the value of ephedrine sulphate in such cases must go, has been kind enough to help us with this patient through personal correspondence, and we wish to take this method of acknowledging her co-operation.

*Submitted for publication June 19, 1933.

Personal and News Items

Dr. Robert Eubanks attended clinics in New Orleans during November.

L. Val Parmley addressed the Lonoke County Medical Society at Lonoke, November 8th on "Electric Shock and Electric Burns."

Dr. S. P. Ruff, a retired practitioner, of Marshall was seriously injured in cranking his car October 28th.

Dr. Grayson E. Tarkington has moved from Hot Springs National Park to Albuquerque, New Mexico.

Dr. C. N. Martin, of Warren, who suffered a fractured skull in an automobile accident October 27th is making satisfactory progress toward recovery.

F. Walter Carruthers attended the meetings of The Central States Orthopedic Society held in Rochester, Minneapolis and St. Paul November 9, 10 and 11.

Dr. W. R. Hunt, Clarksville, suffered fractures of several ribs and of the nose in an automobile accident during October, from which he is making a satisfactory recovery.

Dr. P. W. Lutterloh, Jonesboro, addressed the annual session of the Arkansas Nurses' Association at Jonesboro November 3rd on "Surgical Infections."

Prairie County Medical Society has elected the following officers: President, Wm. J. Williams, Des Arc; Vice-president, Edward Adams, DeValls Bluff, and Secretary, T. G. Porter.

Dr. F. M. Scott, Paragould, an honorary member of the Greene County Medical Society, was honored by the congregation at a service commemorating the fiftieth anniversary of the First Methodist Church held October 22nd. Dr. Scott is a charter member of the congregation.

Dr. Gordon Hastings will present a paper, "Undulant Fever: An Economic Problem" before the Section on Public Health of the Southern Medical Association at the meeting in Richmond, Virginia, November 17th. Dr. H. S. Thatcher, in association with Barnett Sure, will present "Experimental Production of Gastric Ulcers in Albino Rat as a Result of Specific Influence of Vitamin B Deficiency and Vitamin G Deficiency" before the Section on Pathology. Dr. K. W. Cosgrove will open the discussion on the paper by Drs. Day and Langston, "Experiments on Nutritional Cataract," presented before the Section on Opthalmology and Otolaryngology.

Dr. A. C. Kolb, Hope, councilor for the Sixth District, has called a meeting of physicians residing in Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier counties at DeQueen on November 28th for the purpose of reorganizing the Sixth Councilor District Medical Society. The meeting will be held at the Barlow Hotel and the following program will begin at ten o'clock:

Address of Welcome—Mayor Carlton, DeQueen.

Response—Dr. Don Smith, Hope.

Organization of the Society—Dr. A. C. Kolb, Hope.

"Present Trend of Medical Practice"—Dr. L. J. Kosminsky, President, Arkansas Medical Society.

"Uterine Malignancy"—Dr. J. K. Smith, Texarkana.

"Eye Injuries"—Dr. Albert Mann, Texarkana.

"Lethargic Encephalitis"—Dr. B. H. Hawkins, Mena.

"Roentgenology: Its Aid to the General Practitioner"—Dr. O. G. Hirst, Prescott.

"Cholecystitis"—Dr. Arthur F. Hoge, Fort Smith.

Need is the only gauge of Red Cross service. With the memberships pledged in the annual Roll Call, Armistice Day to Thanksgiving, it meets this need.

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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Editorial

The 1932 mortality record of the industrial policyholders of the Metropolitan Life Insurance Company was 8.34 per 1,000 lives. New minima were established for nine important causes of death, among them being tuberculosis, typhoid fever, diphtheria, conditions incidental to pregnancy and accidents. It is felt that the death rate of the country at large is fairly reflected in these figures.

This new low rate is all the more remarkable in view of the unfavorable conditions incident to a year of depression which affected the living standards of a large number of our population. Analysis of factors which have combined to make 1932 a banner health year despite these detrimental influences show that there was freedom from serious epidemics, that the weather conditions were generally favorable, that over-eating and drinking were curbed and that there was much outdoor activity. Fewer accidental deaths were the direct result of curtailed industry activity and automobile traffic.

Yet it is obvious that the most important factor which contributed to this record was the generous treatment given those in need by physicians, the effectiveness of public health measures and the functions of organized relief.

As physicians we may well be proud of the results which have attended what has amounted to a personal sacrifice in many instances. There is now, more than ever before, need to realize that our humanitarian motives must be continued, even at additional sacrifice, if this gain is to be maintained. Certain effects of these depression years, notably the evils of over-crowding, lack of good and sufficient nourishment and the neglect of minor illnesses, will tend to exhibit their influence upon the welfare of the country after a period of several years. In particular, this is true of pulmonary tuberculosis and it is possible that we may face an appalling death rate from this disease within a few years unless proper corrective and preventitive steps are taken now.

In a large way, the obligation is ours and as physicians our duty is clear: continue the effort to inculcate the doctrine of early examination and diagnosis, adequate treatment and prophylaxis and to support with all vigor

every effort to such an end. Only in this manner can a harvest of countless suffering, untold economic waste and numberous deaths be avoided in the years that are to come.

PRESERVE THIS ISSUE

This issue of The Journal contains the membership roster of the Arkansas Medical Society up to the time of going to press. Members are urged to preserve it for future use. There are frequent requests for a list of members of the State and respective county societies which can be more readily taken care of if the individual physician will preserve the roster as published.

Twenty-five Years Ago

(From the files of The Journal of 1908)

Dr. Thos. Douglas, of Ozark, was serving his thirteenth term as secretary of the Franklin County Medical Society. The records of this society show that he was "elected for life" some years ago and it appears that this is being carried out since he is now serving his 38th consecutive term. According to the records this is the longest service in the Arkansas Medical Society. Dr. Douglas joined the State Society in 1889.

Dr. J. J. Morrow, of Cotter, was serving as secretary of the Baxter County Medical Society as he does in 1933.

Dr. H. R. McCarroll was serving as secretary of the Lawrence County Medical Society, an office that he has held continuously with the exception of two terms.

Dr. W. F. Smith opened an infirmary in Clarksville during January, 1908.

Dr. Morgan Smith, Secretary-Editor of the Arkansas Medical Society outlined the following as desirable legislative activities for the society:

1. To allow only graduates of recognized and reputable medical colleges to apply for license.
2. To convert the old Capitol into a Charity Hospital.
3. To create a genuine State Board of Health.
4. A law requiring the registration of births and deaths.
5. To prevent sale of fraudulent nostrums.
6. To sterilize degenerates.
7. To build a State tuberculosis sanatorium.

Proceedings of Societies

The following program was presented at the Ninth Meeting of the Fort Smith Clinical Society held November 7th:

Morning Session

Sparks Memorial Hospital.

Surgical Clinics:

9:00 a. m. Herniotomy—Dr. I. F. Jones.

9:00 a. m. Tonsillectomy—Dr. J. H. Buckley.

Dry Clinics:

10:00 a. m. Symposium on Goitre: Differential Diagnosis—Dr. J. W. Amis.

Treatment—Dr. A. F. Hoge.

Pathology—Dr. F. H. Krock.

Noon Day Luncheon.

Medical Table: Dr. M. S. Dibrell, Host.

"Visual Fields in Brain Lesions"—Dr. H. Moulton.

"Vomiting of Pregnancy"—Dr. Earle Hunt.

"Control of Leprosy in the United States"—Dr. D. W. Goldstein.

Surgical Table: Dr. L. M. Henry, Host.

"Management of Fractures of the Long Bones"—Dr. Jas. A. Foltz.

"Essential Points in Skin Grafting"—Dr. M. E. Foster.

"The Acute Abdomen"—Dr. Chas. S. Holt.

Afternoon Session

"A Clinical Pathological Symposium on Cancer of the Uterus: Radium and Radium Therapy"—Dr. E. H. Skinner, Kansas City, Mo.

"Surgery"—Dr. H. P. Kuhn, Kansas City Mo.

"Clinical and Pathological Specimens from the Radium, Surgery and Pathology Division of St. Luke's Hospital, Kansas City, Mo."—Dr. Ferd. C. Helwig, Kansas City, Mo.

The next meeting will be held at Fort Smith during the spring of 1934.

The Faulkner County Medical Society met at Conway on October 19th. The following program was presented:

"The Gastro-intestinal Tract"—S. F. Hoge, Little Rock.

"Osteomyelitis and Other Bone Conditions"—F. W. Carruthers, Little Rock.

Case Report—"Electric or Battery Mouth" —Geo. W. Jackson, Little Rock.

The papers were fully discussed by those in attendance. Dr. H. W. Hundling of Little Rock, was a visitor.

MARCUS T. SMITH, M. D.,
Secretary.

The Franklin and Johnson County Societies met in joint session at Clarksville October 25th. The following program was presented by the Franklin County Society:

"Rheumatic Heart Disease"—J. L. Post, Altus.

"Cardiac Disease"—Thos. Douglas, Ozark.

Those present were: G. L. Hardgrave, J. S. Kolb, W. R. Hunt, Earle Hunt, J. M. Kolb, A. L. Bowen of Clarksville; S. M. Graves, Mount Levi; M. I. Barger, Lamar; L. R. Bowen, Hagarville; Thos. Douglas, W. C. Porter, E. W. Blackburn, W. H. Gibbons, of Ozark; W. F. Akin, Branch; J. L. Post, Altus, and W. H. Bollinger, Charleston. The next joint meeting will be held during December in Franklin County with members of Johnson County Society furnishing the program.

OUACHITA COUNTY

(Reported by R. B. Robins, Secretary)

The Ouachita County Medical Society met in regular monthly session November 2 at Newman's Cafe in Camden. There were sixteen physicians present. After a delightful banquet the following scientific program was given:

"Acute Chorea"—Dr. J. D. Young, Shreveport.

"Modern Radiation Therapy"—Dr. Harold G. F. Edwards, Shreveport.

The Sebastian County Medical Society met in joint session with the Jasper County (Missouri) Medical Society at Joplin on October 17th. Following dinner, members of the Sebastian County Society presented the following program:

"The Differential Diagnosis of Coma"—J. W. Amis.

"Surgical Measures in the Treatment of Pulmonary Tuberculosis"—F. H. Krock.

"The Treatment of Acute Cranio-cerebral Injuries"—A. F. Hoge.

The Jasper County Society will return the visit at Fort Smith during 1934.

One hundred and fifty physicians attended the fall meeting of the Eighth Councilor District Medical Society held in Little Rock on November 1st. The morning session was held at the Baptist State Hospital and consisted of dry clinics, followed by a luncheon and afternoon program at the Albert Pike Hotel. Officers elected for 1934 are: I. N. McCollum, Conway, president; H. E. Mobley, Morrilton, vice-president and L. Gardner, Russellville, secretary. The spring 1934 meeting will be held in Russellville. The complete program was as follows:

Morning Session

"Eye Pathology and External Diseases of the Eye"—Dr. K. W. Cosgrove, Chief E. E. N. & T.

"Dermatological Clinic"—Dr. R. Q. Patterson, Chief Dermatology.

"Early Diagnosis and Treatment of Prostatitis"—Dr. H. Fay H. Jones, Chief G. U.; Dr. T. Duel Brown.

"Dental and Oral Surgery"—Dr. J. F. Shuffield, Chief Orthopedic Surgery; Dr. Ellery C. Gay, D. D. S., M. D.

"Pre- and Post-Natal Care," Seminar by: Dr. R. N. Blakely, Chief Obstetrics; Dr. E. H. White, Dr. S. B. Hinkle, Dr. Clyde Rodgers, Dr. B. A. Bennett, Dr. Homer Scott.

"Demonstration of Staff Co-operation in Making Diagnosis," Seminar: "Cancer"—Dr. J. P. Sheppard, Chief Medicine; Dr. A. F. Pirnique, Pathology; Dr. A. C. Shipp, Medicine; Dr. D. A. Rhinehart, X-ray.

"Undulant Fever"—Dr. W. F. Smith, Dr. A. F. Pirnique, Dr. M. J. Kilbury.

"Heart Diseases"—Dr. L. F. Barrier, Cardiologist; Dr. A. C. Shipp, Dr. D. A. Rhinehart.

"Surgery"—Dr. J. H. Sanderlin, Chief Gynecology; Dr. G. M. Holmes, Surgery; Dr. H. W. Hundling, Surgery; Dr. W. R. Richardson, Surgery.

Afternoon Session

"Experiences of a Medical Missionary"—Dr. Janet Miller, Little Rock.

"Value of the County Medical Society"—Dr. R. B. Robbins, Camden.

"Tuberculosis"—Dr. A. C. Shipp, Little Rock.

"Birth Injuries"—Dr. A. C. Kirby, Little Rock.

"The Story of the Blood"—Dr. R. B. H. Gradwohl, St. Louis.

Obituary

DR. B. F. GEORGE, fifty-eight years of age, died October 28th in San Angelo, Texas. Dr. George formerly practiced at Hamburg and Parkdale. He is survived by two brothers, G. P., of Hamburg and Joe, of Parkdale and one sister, Mrs. Bernard Carson, of Chicago.

DR. SAMUEL ROBERT HERRING, aged 62, died October 28, 1933, at his home in Warren after suffering a heart attack. He was associated with Dr. W. T. Crow in operating the hospital of Herring & Crow. He was born in Jefferson County, but came to Bradley County to practice medicine. Here he married Miss Mary Elizabeth Godfrey, September 22, 1896. To them four children were born. Dr. Herring attended Tulane University at New Orleans, La., Chicago Polyclinic and New York Polyclinic. He was a member of the Methodist Church, the Knights of Pythias, the Bradley County Medical Society, the State Medical Association and of the American Medical Association. He is survived by his wife; three daughters, Mrs. Charlie McNew, Jr., of Pine Bluff, Mrs. E. H. Plettner of Denver, Col., and Miss Morce Herring of Hollywood, Cal.; a son, Samuel Robert Herring, Jr., of Warren, and two grandchildren.

DR. HARRY WYNNE BROWNING, aged 48, of Little Rock, died at St. Vincent's Infirmary, at 2:40 p. m. Friday, November 3, 1933. He was born at Bloomington, Ill., February 14, 1885.

Dr. Browning attended St. Mary's College at Bloomington, Ill., and later studied at the University of Arkansas Medical School, from which he was graduated in 1911 with the degree of Doctor of Medicine. He received the degree of Master of Science from Little Rock College in 1928. After obtaining the medical degree, Dr. Browning served as an intern at St. Vincent's Infirmary and then accepted a post as house surgeon and assistant district surgeon with the Missouri Pacific Railroad Hospital where he remained until 1923. In that year he went to St. Louis, where he took a postgraduate course for one year at the Children's Hospital. He returned to Little Rock in 1924 and became associated with Dr. A. C. Kirby with whom he specialized in pediatrics.

He was chief of pediatrics at the infirmary and also was a member of the staffs of practically all hospitals in Little Rock.

Dr. Browning was active in civic affairs. During the war he was a first lieutenant in the Army Medical Corps, and in this capacity served overseas ten months in Evacuation Hospital No. 29.

He was a member of Little Rock Council No. 812, Knights of Columbus; the Pulaski County Medical Society, the Arkansas Medical Society, the American Medical Association, St. Andrew's Cathedral and its choir, and was president of the Cathedral Men's Club.

Dr. Browning is survived by his wife, Mrs. Julia Theresa Koers Browning; five sons, Louis Eugene, Joseph Edward, Robert Edwin, William Vinson and James Patrick Browning; his mother, Mrs. M. C. Browning of Shreveport, La.; a brother, Charles L. Browning of North Little Rock, and two sisters, Mrs. E. J. Johnson of Shreveport and Miss Francis Browning of Chicago.

In error the August, 1933, issue of the Journal reported the death of Dr. Austin Flint Barr, Cherry Valley. This should have been notice of the death of Dr. Albert Decatur Barr, also of Cherry Valley, who died July 3, 1933, at the age of 73 years. The Journal regrets this error.

Correspondence

Chicago, Ill., November 9, 1933.

Dr. W. B. Grayson, State Health Officer,
Little Rock, Ark.

An outbreak of amoebic dysentery has been uncovered by us in several hotels and eating places in Chicago. We have records of guests that have carried the infection to many points throughout the country. These cases are not generally recognized as amoebic dysentery and some of them have been operated upon for appendicitis or ulcerative colitis with unfortunate results. At the suggestion of Doctor Spencer, who is representing the USPHS and co-operating with us in this study, we are asking you to inform the physicians and local health officers of your State to be on the alert for such cases and if you find any that have had their origin in Chicago will you kindly wire me collect so that we may complete our records.

HERMAN N. BUNDESEN, M. D.

Auxiliary Notes

Mrs. D. W. Goldstein
Publicity Secretary, Fort Smith

PRESIDENT'S MESSAGE

Dear Members:

I trust by now your year's work is well on its way. There are a few things I would like to stress as objects for this year. A chain is just as strong as its weakest link, therefore, each and every county and each and every member must aid if we intend to have a strong State organization.

First let me stress the early payment of dues.

Then following the policy of county strength, it is imperative that each county have strong committee chairmen, especially in Hygeia, Public Health, Public Relations and Publicity. For our very own we have the Ilse. F. Oates Student Loan Fund.

It is important that all county committee chairman report each month to the State committee chairmen, so that all loose ends may be tied and publicity be given to us both in our own State Journal, and our A. M. A. Auxiliary bulletin. We are fortunate in having Mrs. D. W. Goldstein of Fort Smith as our new publicity secretary.

All counties should use the "Handbook." A supply has been ordered and single copies can be procured from the treasurer, Mrs. Anderson Watkins, of Little Rock, at forty cents each.

Please send a report of every meeting to Mrs. D. W. Goldstein of Fort Smith, in order that each county may receive publicity.

Let us strive to make ARKANSAS a banner State, so that we can point to our achievements with pride.

In conclusion, your president is anxious to meet with you at any regular meeting during the year. Do not hesitate to call on me or any officer for such assistanee as you might require.

Our pleasure is to serve you all—for the benefit of OUR AUXILIARY.

Nellie T. Rhinehart,
(Mrs. Barton A. Rhinehart),
President.

RESOLUTION OF RESPECT BY THE AUXILIARY TO SEBASTIAN COUNTY MEDICAL SOCIETY UPON THE DEATH OF ROBERTA MARTIN SMITH, FORT SMITH, ARK.

Whereas, our Heavenly Father, the Supreme Physician of the Universe, in His benign wisdom, has seen fit to take from our midst our beloved friend and associate, Roberta Martin Smith; and

Whereas, her passing leaves a sad vacancy in the ranks of the Auxiliary to the Sebastian County Medical Society, the loss of an active and interested member, an efficient worker, and a beloved friend; and

Whereas, we honor her as Past President of our Auxiliary and Chairman of State Committees.

Be It Resolved, that the Auxiliary to the Sebastian County Medical Society extend its condolenee to her bereaved husband by these expressions of sympathy, and that these resolutions be spread upon the minutes of the Auxiliary and a copy be sent to her sorrowing husband.

Respectfully submitted,
Auxiliary to the Sebastian County
Medical Society
Juliette G. Moulton,
Elizabeth M. Wolfermann,
Committee.

PULASKI COUNTY

Mrs. B. A. Rhinehart, president of the Woman's Auxiliary to the Arkansas Medical Society, gave a report of the National committee meeting held recently at Milwaukee, at the annual Dutch treat luncheon of the Woman's Auxiliary to the Pulaski County Medical Society held Wednesday October 18 at the Peacock Tearoom, with the president, Mrs. Byron Bennett, presiding. The guests were seated at tables decorated with silver bowls filled with pink and white cosmos and white tapers in silver holders. Mrs. W. N. Freemyer and Mrs. G. A. McCormack were welcomed as new members. The next meeting of the auxiliary will be held Wednesday, November 15, at the home of Mrs. W. R. Richardson.

INDEPENDENCE COUNTY

The Independence County Medical Auxiliary met on Monday, October 9, with the

president, Mrs. O. J. T. Johnson, following a dinner at the Country Club where the Independence County Medical Society entertained the Second Councilor District Society. The auxiliary was honored by the presence of Mrs. B. A. Rhinehart, State President, who gave an interesting address stressing the objectives of the year's auxiliary work. Mrs. R. C. Dorr, as program chairman, presented an interesting program with Mrs. Victoria Saylors and Mrs. L. T. Evans taking part. Mrs. M. S. Craig was welcomed as a new member. Other guests included Mrs. Weigart, Batesville, and Mrs. Rogers, Searcy.

Book Reviews

Principles of Chemistry. By Joseph H. Roe. Price, $2.50. St. Louis: C. V. Mosby Co., 1932.

This volume should make an excellent text for nurses, for it is not only well written but full of adequate illustrations. The theoretical material is presented in a pleasing and readable manner. Emphasis has been placed on the biological and medical phases of chemistry which should aid the student nurse in correlating chemistry with other studies while in training and to her work in general.

Manual of Clinical and Laboratory Technic. By Hiram B. Weiss, A. B., M. D., F. A. C. P., Associate Professor of Medicine, College of Medicine, University of Cincinnati, Cincinnati, Ohio; and Raphael Isaacs, A. M., M. D., F. A. C. P., Associate Professor of Medicine, Assistant Director of the Thomas Henry Simpson Memorial Institute for Medical Research, University of Michigan, Ann Arbor, Mich. Fourth Edition, Reset. 117 pages, with Diet Table. Philadelphia and London. W. B. Saunders Company, 1932. Cloth, $1.50 net.

This manual of 117 pages is written in outline form being divided into four parts: (A) History and Physical Examination, (B) Laboratory Examinations, (C) Technical Procedures and (D) Nutritive Values. This small volume is essentially a book for students, however such tables as "Basal Metabolism in Various Diseases" and "Average Normals of Blood Chemical Constituents," make a ready reference to physicians interpreting clinical laboratory reports. The section on laboratory examinations is excellent and shows a wise choice of technic; however, it is not complete enough for those who work in the clinical laboratories. Part (D), Nutritive Values, although excellent in itself, would probably find a better place in some other volume.

The Surgical Clinics of North America. (Issued serially, one number every other month.) Volume 13, No. 4. (Mayo Clinic Number—August, 1933.) Octavo of 215 pages with 65 illustrations. Per clinic year, February, 1933 to December, 1933. Paper, $12.00; Cloth, $16.00 net. Philadelphia and London: W. B. Saunders Company, 1933.

This, the Mayo Clinic Number, contains a comprehensive article on chronic duodenal obstruction. The etiology, symptomatology and treatment are fully discussed and practically all the necessary knowledge is presented which is required for an understanding of this condition. Studies on 47 retroperitoneal sarcomas coming to operation and biopsy form the subject of another most interesting discussion. Adson presents a consideration of the neuromuscular treatment of muscular spasms and spastic and trophic lesions of the extremities. Spasms of the face, spasmodic torticollis, spasticity and peripheral and trophic lesions are covered in a readable form, giving much information in a compact style. The volume is of the usual high standard which is expected of this publication.

American Illustrated Medical Dictionary. A complete Dictionary of the terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Nursing, Veterinary Science, Biology, Medical Biography, etc. By W. A. Newman Dorland, M. D., Member of the Committee on Nomenclature and Classification of Diseases of the American Medical Association. Sixteenth Edition, Revised and Enlarged. Octavo of 1,493 pages, 941 illustrations, 279 portraits. Philadelphia and London: W. B. Saunders Company, 1932. Flexible and stiff binding, plain $7.00 net; Thumb Index, $7.50 net.

It was a wonderful conception of the then young Dr. W. A. Newman Dorland to commence to make a better medical dictionary for the use and benefit of medical men wherever the English language is spoken or understood, and have the first edition published at the very beginning of this Century of Progress. To W. B. Saunders Company is due the credit of pushing the publication of this excellent dictionary to its 16th edition at the thirty-second year of this century.

The publishers claim a large number of "Important New Words in the new 16th edition and a distinctive feature of this revision is the inclusion of 279 portraits of men who have given their names to the terminology of medicine."

You will find the pronunciation of their names, notwithstanding how some of us have failed to call or pronounce them as they should be called. You never need be in doubt about the correct pronunciation of any word in this dictionary, as their method used is the easiest and best ever used in any dictionary.

It is also a work of ready reference to so many different subjects—take for instance the human body, and see the skeleton taking up a full-sized page with the names of the bones in red ink. Then the names of the arteries are alphabetically arranged with their origin, distribution and branches. Then we have the muscles, also alphabetically arranged with their origin, insertion, nerve supply and action. The same can be said of the nervous system.

Under disease you will find much that should interest any medical man or woman who cares to have a better knowledge of diseases. And under Method you will find much to interest the surgeon and general practitioner. Then when you are not too busy if you go over the long list of signs you may find something that will be useful to you, in fact I do not see how any doctor can get along without this excellent dictionary unless he is hypamnesic, but you will only find the word hypamnesia so far.

H. D. Wood, M. D.

Ten Years of Obstetrics and Gynecology in Private Practice. A Clinical Report of 1,750 Obstetrical and 1,345 Gynecological Cases, with Comparative Analyses of Many of the Larger Groups, and Detailed Case Histories of Some of the More Important and Less Common Conditions. By John L. Rothrock, A. B., M. D., F. A. C. S., Formerly Associate Professor of Obstetrics and Gynecology, University of Minnesota: Former Member of the Miller Clinic and Chief of the Obstetrical and Gynecological Services of The Charles T. Miller Hospital and The Amherst H. Wilder Dispensary, St. Paul, Minn. Price, $3.00. New York: Paul B. Hoeber, Inc., 1933.

A statistical record of the cases treated by one man in private practice over a period of ten years, with some interesting and instructive comments. The book should be of particular interest to the busy practitioner for it is well written in a concise manner.

Chapter eighteen describes the various types of Caesarean section. Chapter twenty refers to perineal repair; the author prefers the use of a local anesthetic for the immediate repair of a laceration following childbirth and he describes in detail his method. Part Two is devoted to Gynecology with a listing of the different diagnoses in a series of 1,345 patients.

The Expectant Mothers' Handbook. By Frederick C. Irving, A. B., M. D., Professor of Obstetrics, Harvard Medical School. Visiting Obstetrician, Boston Lying-in Hospital, Boston, Mass. Price, $1.50. Octavo, 199 pages. Published by Houghton Mifflin Co., Boston.

This handbook is written to give the expectant mother a guide by which she can better co-operate with her physician. It is written in such simple and understandable language that all mothers can comprehend. This book should not only be in the hands of every obstetrician but better in the hands of every pregnant mother of America. The reviewer believes that the death rate of both mother and child would be greatly lowered if every practitioner doing obstetrics would insist on their patients having this book.

Nervous Breakdown. By W. Beran Wolf, M. D. Pp. 240. Farrar & Rhinehart, Publishers, New York.

This book is written in simple understandable language and should be of value to both the physician and the so-called nervous patient. It contains many practical suggestions and part three outlines many cases and cures. It would not be unusual for a patient to find a case cited similar to his own. While ordinarily it may not be well for such a patient to delve too deeply into self-analysis, a simple statement of conditions as outlined in this book dispels the mystery usually surrounding such conditions. A patient should obtain much encouragement from this book by bringing about the realization that he is not a rare "forgotten man" of medicine, but one of many similar cases which have been cured. This thought alone should give a patient literally a new lease on life.

CAMPBELL WARNS PUBLIC AGAINST DANGEROUS EYELASH DYE

Letters received by the Federal Food and Drug Administration concerning injury to users of "Lash-Lure," an eyelash dye manufactured by Lash-Lure, Inc., Los Angeles, Calif., led W. G. Campbell, Chief of the Administration, to issue the following statement today:

"We recently investigated the case of a prominent Dayton, Ohio, clubwoman who was made totally blind as a result of an application made by a beauty parlor operator, of this highly poisonous cosmetic. Lash-Lure, according to the **Journal of the American Medical Association**, contains an aniline dye which is extremely corrosive and capable of burning away the outer coating of the eyes. The administration has investigated a number of cases of blindness or seriously impaired vision attributed to the use of this injurious eyelash 'beautifier.' The medical literature contains accounts of a number of ocular injuries caused by the cosmetic. A number of these are printed on pages 1016 and 1017 of the **Journal of the American Medical Association**, September 23, 1933.

"The administration recently received a complaint from a cosmetic manufacturer in Chicago to the effect that the showing of a news reel containing a reference to the highly dangerous character of this product was unfair to the cosmetic industry," continued Mr. Campbell. "We understand the reactions of some cosmetic manufacturers, but insist that the public is entitled to have the facts. Cosmetic manufacturers who are putting out safe products should welcome any governmental move taken against dangerous products of the type of Lash-Lure. At present the administration has no legal power to take such action. So far as cosmetics are concerned the administration's authority is limited to those products which bear curative claims on their labels. Lash-Lure is not labeled with remedial declarations.

"When the administration was unable recently to proceed against an extremely dangerous depilatory, Koremlu, we were bitterly assailed by many critics who wanted to know why action was not taken against the cosmetic. Koremlu contained a deadly poison, thallium acetate, which caused serious injury to users. Yet, due to deficiencies in the present pure food and drug law, enforcing officials were unable to proceed against this product or its manufacturer. In spite of our inability to direct regulatory action against Lash-Lure, Koremlu, and numerous other dangerous cosmetics, we firmly believe that we would be seriously remiss if we did not inform the public by every means in our power of the dangers involved in using such poisonous 'beautifiers.' The loss of even one person's eyesight is such a terrible thing that we can offer no excuse for not putting the public on guard against a sight destroyer.

"It is unfair to the ethical and careful manufacturers of cosmetics to force them to suffer an impairment of public confidence which the operations of a few careless, brutal, or unscrupulous manufacturers occasion by their reckless distribution of highly toxic substances," Mr. Campbell stated.

The Red Cross has never failed. With your help it never will. Repledge your support at the annual Roll Call, Armistice Day to Thanksgiving.

WHICH CODFISH SHOULD BE USED FOR MEDICINAL COD LIVER OIL?

"Zilva and Drummond were the first to draw attention to the high vitamin value of oil prepared in Newfoundland, an observation that has been repeatedly confirmed."

"The figures for the estimations of vitamin A show that . . . the Norwegian oils are the lowest, followed in increasing order by the Scottish, Icelandic and Newfoundland oils."

"The vitamin D tests also reveal the relatively high value of Newfoundland oil." "The northern fish grow more slowly than those frequenting the southern shores" (e. g., Newfoundland—due probably to the warmer temperature of the Gulf Stream)—from **"The Relative Values of Cod Liver Oils from Various Sources"** by J. C. Drummond and T. P. Hilditch.

Mead's Newfoundland Cod Liver Oil and Mead's 10 D Cod Liver Oil with Viosterol are made from Newfoundland codfish exclusively.

THE RED CROSS CARRIES ON

The finances of the American Red Cross are audited by the War Department. Every transaction must be carefully checked and properly receipted. In every disaster where relief is given by the Red Cross, which in its role of nationally-authorized disaster-relief agency is the first to respond in every holocaust, whether caused by nature's malevolence or man's negligence, a staff of accountants and clerks is detailed to keep a careful record of every expenditure.

Inasmuch as the relief measures often entail a variety of articles ranging from safety-pins to lumber, the amount of paper work involved, in requisitions, vouchers, receipts, checks, and the like, is enormous, and each of these must be prepared in duplicate for the final audit by the War Department.

Perhaps the greatest volume of clerical and accounting business ever imposed upon the Greatest Mother was incident to the administration during the recent depression, of 85,000,000 bushels of Federal Farm Board wheat and 844,000 bales of raw cotton. No other one concern ever before essayed so colossal a merchandising project. The cotton was spun and woven into textiles by 374 factories; 848 mills ground the wheat into flour and cereals. Enough cotton cloth was produced to girdle the globe one and one-half times. Out of the grain, 84,000,000 sacks of flour, each containing 24½ pounds was converted, with additional quantities of various cereals distributed in two pound containers. Millions of papers were handled in the course of these transactions. Warehouse receipts, vouchers, checks and all the intricate details with which bankers and accountants are familiar were a part of the most gigantic relief operation ever carried on. The overhead costs to the National Organization approximated $710,000. But for the unstinted labors of such an army of Red Cross volunteers as had not been mobilized since the days of the World War, these costs would have been so prohibitive as to neutralize the amount of relief given.

But the American Red Cross is made up of volunteers. In its ranks there is room for every man, woman and child in the nation—and work enough to give each one a chance to serve his fellows. One of the most immediate ways of rendering service is by joining up during the annual Roll Call, from Armistice Day to Thanksgiving, at which time the Greatest Mother replenishes her financial resources to carry on for the service of mankind.

Membership Roster of the Arkansas Medical Society for 1933

ARKANSAS COUNTY

Dickens, Homer ..... DeWitt
Fowler Arthur ..... Humphrey
John, M. C. ..... Stuttgart
Lowe, W. W. ..... Gillett
Neighbors, J. E. ..... Stuttgart
Park, C. E. ..... DeWitt
Poe, F. A. ..... Gillett
Rasco, C. W. ..... DeWitt
Swindler, E. B. ..... Stuttgart
Whitehead, R. H. ..... DeWitt
Word, J. F. ..... St. Charles

ASHLEY COUNTY

Barnes, L. C. ..... Hamburg
Cockerham, H. E. ..... Portland
Crandall, M. C. ..... Wilmot
Gibbs, A. M. ..... Hamburg
Hawkins, M. C. ..... Parkdale
Norman, W. S. ..... Hamburg
Simpson, J. W. ..... Hamburg
Smith, M. L. ..... Fountain Hill
Spivey, C. E. ..... Crossett
Wood, J. T. ..... Crossett

BAXTER COUNTY

Morrow, J. J. ..... Cotter

BENTON COUNTY

Atkinson, R. M. ..... Bentonville
Buffington, G. W. ..... Decatur
Clemmer, J. L. ..... Gentry
Crockett, C. S. ..... Lincoln
Curry, W. J. ..... Rogers
Duckworth, F. M. ..... Siloam Springs
Eubanks, F. G. ..... Decatur
Greene, Lee O. ..... Pea Ridge
Harrison A. J. ..... Springdale
Highfill, E. J. ..... Cave Springs
Hughes, G. A. ..... Siloam Springs
Hodges, Guy ..... Rogers
Horton, C. W. ..... Hiwasse
Koobs, H. J. G. ..... Rogers
Love, Geo. M. ..... Rogers
McNeil, Clyde L. ..... Rogers
Moore, W. A. ..... Rogers
Peacock, A. L. ..... Gentry
Pickens, E. A. ..... Bentonville
Pickens, W. A. ..... Bentonville
Powell, J. T. ..... Gravette
Williams, J. Rex ..... Siloam Springs
Wilson, C. S. ..... Siloam Springs

BOONE COUNTY

Adams, A. V. ..... Yellville
Blackwood J. C. ..... Harrison
Evans, D. E. ..... Harrison
Fowler, J. H. ..... Harrison
Fowler, T. P. ..... Harrison
Gladden, J. G. ..... Western Grove
Johnson, J. J. ..... Harrison
Kirby, F. B. ..... Harrison
Moore, W. T. ..... Everton
Owens, D. L. ..... Harrison
Poynor, W. H. ..... Harrison
Sims, George Kirby ..... Harrison
Watkins, W. L. ..... Alpena Pass
Weast, L. M. ..... Yellville

BRADLEY COUNTY

Crow, M. T. ..... Warren
Ellison, L. E. ..... Warren
Fike W. T. ..... Warren
Gannaway, C. E. ..... Warren
*Herring, S. R. ..... Warren
Martin, C. N. ..... Warren
Martin, Rufus ..... Warren

CARROLL COUNTY

Bohannan, J. H. ..... Berryville
Butts, W. A. ..... Green Forrest
Carter, A. L. ..... Berryville
Huntington, R. H. ..... Eureka Springs
John, J. F. ..... Eureka Springs
McCurry, D. K. ..... Green Forrest
Pace, Henry ..... Eureka Springs
Parker, J. R. ..... Eureka Springs
Webb, J. H. ..... Eureka Springs

*Deceased.

CHICOT COUNTY

Barlow, E. E. ..... Dermott
Burge, John H. ..... Lake Village
Clark, B. C. ..... Lake Village
Craig, William A. ..... Eudora
Douglas, S. W. ..... Eudora
Easterling, W. D. ..... Lake Village
Easterling, W. W. ..... Chicot
Hutson, William J. ..... Eudora
McGehee, E. P. ..... Lake Village

CLARK COUNTY

Bremer, J. P. ..... Point Cedar
Carter, E. E. ..... Arkadelphia
McLain, J. T. ..... Gurdon
Roland, W. T. ..... Arkadelphia
Ross, H. A. ..... Arkadelphia
Ross, T. T. ..... Arkadelphia
Townsend, C. K. ..... Arkadelphia

CLAY COUNTY

Blackwood, W. J. ..... Rector
Cohn, George ..... Piggott
Cunning, I. H. ..... Knoble
Futrell, J. B. ..... Rector
Hiller, J. P. ..... Pollard
Jones, F. H. ..... Piggott
Latimer, N. J. ..... Corning
McGuire, J. E. ..... Piggott
Parrish, W. O. ..... Rector
Poole, W. I. ..... St. Francis
Richardson, M. C. ..... Corning

CLEBURNE COUNTY

Matthews, J. T. ..... Heber Springs

CLEVELAND COUNTY

Hamilton, A. J. ..... Rison
Hancock, W. G. ..... Rison

COLUMBIA COUNTY

Baker, J. J. ..... Magnolia
Carrigan, H. K. ..... Magnolia
Cooksey W. P. ..... Magnolia
Horn, W. H. ..... Taylor
Jones, T. H. ..... Magnolia
McWilliams, C. T. ..... Magnolia
Smith, P. M. ..... Magnolia

CONWAY COUNTY

Bruce, W. H. ..... Pine Bluff
Dunman, W. D. ..... Plummerville
Hardison, T. W. ..... Morrilton
Holloway, W. R. ..... Center Ridge
Matthews, E. L. ..... Morrilton
Matthews, J. M. ..... Morrilton
Mobley, H. E. ..... Morrilton

CRAIGHEAD-POINSETT COUNTY

Alcott, G. B. ..... Weiner
Altman, J. J. ..... Jonesboro
Baird, J. L. ..... Marked Tree
Barrett, E. R. ..... Jonesboro
Bates, C. A. ..... Lake City
Burge, H. G. ..... Nettleton
Cohen, O. T. ..... Jonesboro
Elders, J. W. ..... Harrisburg
Ellis, Ira ..... Monette
Haltom, W. C. ..... Jonesboro
Hartwig, C. D. ..... Lake City
Horner, E. J. ..... Jonesboro
Jackson, W. W. ..... Jonesboro
Jernigan, R. M. ..... Jonesboro
Lutterloh, P. W. ..... Jonesboro
McAdams, H. H. ..... Jonesboro
McCurry, J. H. ..... Cash
McDaniel, L. H. ..... Tyronza
Nesbitt, Frank ..... Brookland
Overstreet, W. C. ..... Jonesboro
Ramsey. J. W. ..... Jonesboro
Ratliff, R. W. ..... Jonesboro
Reagan, C. H. ..... Marked Tree
Sloan, R. M. ..... Jonesboro
Stroud, H. A. ..... Jonesboro
Verser, W. W. ..... Harrisburg
Willett, R. H. ..... Jonesboro

CRAWFORD COUNTY

Bourland, O. M. ..... Van Buren
Bruce, B. B. ..... Alma
Dibrell, M. S. ..... Van Buren
Engler, Frank G. ..... Mountainburg
Galloway, Q. R. ..... Alma
Kirkland, S. D. ..... Van Buren
Kirksey, Odell J. ..... Mulberry
Savery, H. W. ..... Van Buren
Stewart, John M. ..... Van Buren
Trice, J. B. ..... Van Buren
Wigley, John A. ..... Mulberry

CRITTENDEN COUNTY

Hare, T. S. ..... Crawfordsville
McVay, L. C. ..... Marion
Parker, A. C. ..... Clarkedale
Purnell, R. L. ..... Marion
Stevenson, B. M. ..... Crawfordsville

CROSS COUNTY

Barr, Austin Flint ..... Cherry Valley
Griffin, J. L. ..... Vanndale
*Lipsey, L. H. ..... Wynne
Longest, Ruffin ..... Wynne
McKie, J. D. ..... Wynne
McKie, W. H. ..... Wynne
Miller, J. S. ..... Parkin
Stewart, Thomas J. ..... Wynne
Wilson, Thomas ..... Wynne

DALLAS COUNTY

Cheatham, H. A. ..... Princeton
Estes, E. E. ..... Fordyce
Lisenbee, A. M. ..... Sparkman
March, J. C. ..... Fordyce
Taylor, J. E. M. ..... Sparkman
Ward, W. P. ..... Fordyce

DESHA COUNTY

Chenault, J. C. ..... McGehee
Grayson, W. B. ..... Little Rock
Kimbro, C. H. ..... Tillar
MacCammon, Vernon ..... Arkansas City
Miller, J. C. ..... McGehee
Rands, H. A. ..... Dumas
Smith, H. T. ..... McGehee
Watts, J. D. ..... Dumas

DREW COUNTY

Collins, A. S. J. ..... Monticello
DeBolt, G. C. ..... Monticello
Gates, S. M. ..... Monticello
Pope, M. Y. ..... Monticello
Smith, R. N. ..... Collins
Wilson, J. S. ..... Monticello

FAULKNER COUNTY

Cureton, H. E. ..... Conway
Dawson, R. L. ..... Wooster
Dickerson, C. H. ..... Conway
Downs, J. H. ..... Vilonia
Dunaway, L. S., Jr. ..... Conway
Fraser, N. E. ..... Conway
Glover, A. J. ..... Guy
Henderson, G. L. ..... Conway
Kitley, J. R. ..... Mayflower
Lieblong, J. S. ..... Greenbrier
McCollum, I. N. ..... Conway
Smith, Marcus T. ..... Conway
Westerfield, J. S. ..... Conway

FRANKLIN COUNTY

Akin, W. F. ..... Branch
Bollinger, W. H. ..... Charleston
Douglas, Thos. ..... Ozark
Gibbons, W. H. ..... Ozark
Porter, W. C. ..... Ozark
Post, J. L. ..... Altus

GARLAND COUNTY

Black, T. N. ..... Hot Springs
Blackshare, W. M. ..... Hot Springs
Bollmeier, L. N. ..... Mountain Pine
Brewer, H. W. ..... Hot Springs
Browning, E. R. ..... Hot Springs
Casada, B. F. ..... Hot Springs
Chamberlain, W. W. ..... Hot Springs
Chesnutt, J. H. ..... Hot Springs
Clardy, Floyd ..... Hot Springs
Coffey, George C. ..... Hot Springs
Collings, H. P. ..... Hot Springs
Diederich, V. P. ..... Hot Springs

GARLAND COUNTY—Continued

Eckel, George M. — Hot Springs
Ellis, L. R. — Hot Springs
Fletcher, G. B. — Hot Springs
Garratt, Charles E. — Hot Springs
Hebert, G. A. — Hot Springs
Jackson, W. W. — Hot Springs
Jarrell, Foster — Hot Springs
King, O. H. — Hot Springs
Klugh, W. G. — Hot Springs
Knoefel, W. R. — Hot Springs
Lautman, M. F. — Hot Springs
Laws, W. V. — Hot Springs
Lee, D. C. — Hot Springs
Lutterloh, C. H. — Hot Springs
MacLaughlin, O. J. — Hot Springs
Martin, L. G. — Hot Springs
Merrit, J. F. — Hot Springs
Moss, C. S. — Hot Springs
Nims, C. H. — Hot Springs
Porter, W. F. — Hot Springs
Proctor, J. M. — Hot Springs
Robertson, J. A. — Hot Springs
Rowland, John F. — Hot Springs
Sanders, T. E. — Hot Springs
Scully, F. J. — Hot Springs
Sharpe, S. B. — Hot Springs
Shaw, E. I. — Little Rock
Shaw, J. B. — Hot Springs
Smith, E. M. — Hot Springs
Smith, W. K. — Hot Springs
Stough D. B. — Hot Springs
Strachan, J. B. — Hot Springs
Tarleton, Francis S. — Hot Springs
Tarkington, Grayson E. — Albuquerque, N. M.
Tribble, A. H. — Hot Springs
Wade, H. K. — Hot Spirngs
Waldrop, J. G. — Hot Springs
Wenger, O. C. — Hot Springs
Wilkins, J. S. — Hot Springs
Winegar, E. F. — Chicago, Ill.
Wootton, W. T. — Hot Springs

GRANT COUNTY

Cole, C. F. — Prattsville
Hope, O. W. — Sheridan
Kelly, O. R. — Sheridan
Paxton, R. L. — Sheridan

GREENE COUNTY

Bridges, George P. — Paragould
Clopton, O. H. — Marmaduke
Dillman, James A. — Paragould
Greene, W. E. — Paragould
Haley, Robert J., Sr. — Paragould
Hudgins, J. J. — Paragould
Hardesty, C. A. — Paragould
Lamb, J. H. — Paragould
Majors, M. M. — Paragould
Scott, F. M. — Paragould

HEMPSTEAD COUNTY

Allison, W. G. — Hope
Autrey, J. R. — Columbus
Cannon, G. E. — Hope
Carrigan, P. B. — Hope
Kolb, A. C. — Hope
Lile, L. M. — Hope
Martindale, G. H. — Hope
Martindale, J. G. — Hope
McDonald, T. L. — Hope
Pickell, F. W. — Brewton, Ala.
Robins, R. R. — Blevins
Robins, W. F. — Ozan
Smith, Don — Hope
Weaver, J. H. — Hope
Wood, R. L. — Delight

HOT SPRING COUNTY

Barrier, W. F. — Malvern
Bramlitt, E. T. — Malvern
Brown, H. L. — Malvern
Hodges, W. G. — Malvern
McCray, E. H. — Malvern
Norton, J. M. — Donaldson
Williams, J. M. — Malvern

HOWARD-PIKE COUNTY

Dildy, E. V. — Nashville
Gibson, W. M. — Nashville
Hutcherson, D. A. — Nashville

*Deceased.

INDEPENDENCE COUNTY

Bone, O. L. — Newark
Brown, H. H. — Walnut Grove
Churchill, C. A. — Batesville
Craig, M. S. — Batesville
Dorr, R. C. — Batesville
Evans, L. T. — Batesville
Gray, C. C. — Batesville
Gray E. M. — Evening Shade
Gray, F. A. — Batesville
Hinkle, C. G. — Batesville
Hooper, J. M. — Batesville
Huskey, I. M. — Cave City
Jeffery, Paul — Bethesda
Johnston, O. J. T. — Batesville
Kennerly, J. H. — Batesville
Laman, G. T. — Cave City
Pascoe, V. L. — Newark
McAdams, V. D. — Cord
*Rodman, T. N. — Batesville

JACKSON COUNTY

Best, A. L. — Newport
Causey, G. A. — Swifton
Elton, A. M. — Newport
Erwin Ira H. — Newport
Gray, C. R. — Newport
Ivy, John B. — Tuckerman
Jamison, O. A. — Tuckerman
Kimberlin, K. K. — Tuckerman
Morton, R. F. — Swifton
Owens, M. B. — Newport
Pierce, William — Tupelo
Stephens, G. K. — Newport
Walker, H. O. — Newport
Watson, E. L. — Newport

JEFFERSON COUNTY

Blankenship, W. H. — Pine Bluff
Capel, C. B. — Pine Bluff
Caruthers, C. K. — Pine Bluff
Chavis, Walter M. — Pine Bluff
Clark O. W. — Pine Bluff
Cunningham, T. J. — Pine Bluff
Gill, J. F. — Pine Bluff
Gurney, J. O. — Pine Bluff
Hankison, O. C. — Pine Bluff
Higinbotham, C. J. — Pine Bluff
Hughes, A. A. — Pine Bluff
Jenkins, J. S. — Pine Bluff
John, J. W. — Pine Bluff
Lemons, J. M. — Pine Bluff
Lowe, W. T. — Pine Bluff
Luck, B. D., Sr. — Pine Bluff
Luck, B. D., Jr. — Pine Bluff
McMullen, E. C. — Pine Bluff
Palmer, J. T. — Pine Bluff
Pittman, W. G. — Pine Bluff
Scales, J. W. — Pine Bluff
Shelton, M. A. — Wabbaseka
Spillyards, J. S. — Pine Bluff
Tankersley, Grace — Pine Bluff
Troupe, A. W. — Pine Bluff
Woods, R. P. — Altheimer

JOHNSON COUNTY

Barger, M. I. — Lamar
Boen, A. L. — Clarksville
Burgess, M. E. — Oraibi, Ariz.
Hardgrave, George L. — Clarksville
Hunt, Earle H. — Clarksville
Hunt, W. R. — Clarksville
Kolb, J. M. — Clarksville
Kolb, J. S. — Clarksville
Seigel, G. R. — Clarksville
Thompson, Ewell I. — Little Rock

LAFAYETTE COUNTY

Armstrong, R. L. — Lewisville
Baker, F. E. — Stamps
Keith, W. A. — Stamps
McKnight, J. F. — Walnut Hill
Youmans, F. W. — Lewisville

LAWRENCE COUNTY

Ball, C. C. — Ravenden
Guthrie, T. C. — Smithville
Hardeway, J. E. — Lynn
Hatcher, W. W. — Imboden
Henderson, A. G. — Imboden
Hughes J. C. — Hoxie
Hukill, O. K. — Walnut Ridge
Kendall, W. S. — Strawberry
Land, J. C. — Walnut Ridge
McCarroll, H. R. — Walnut Ridge
Neece, T. C. — Walnut Ridge
Poindexter, J. C. — Imboden
Tibbeles, Chas. D. — Black Rock
Watkins, G. Max — Walnut Ridge

LEE COUNTY

Bean, W. B. — Marianna
Beatty, W. S. — Aubrey
Crawford, W. S. — Marianna
Hodge, N. C. — Marianna
Russwurm, W. C. — Hughes
White, H. L. — Rondo
Williamson, O. L. — Marianna

LINCOLN COUNTY

Dixon, Charles W. — Gould
McLendon J. M. — Gould
Tarver, Vernon — Star City
Thiolliere, A. C. — Gould
Wood, G. C. — Grady

LITTLE RIVER COUNTY

Castile, Herman — Foreman
Heller, H. G. — Foreman
Phillips, P. H. — Ashdown
Ringgold, J. W. — Ashdown
York, W. W. — Ashdown

LONOKE COUNTY

Beaty, S. S. — England
Benton, T. E. — Lonoke
Callahan, E. A. — Carlisle
Corn, F. A., Jr. — Lonoke
Crowgey, W. B. — Scott
Ellis, C. S. — Lonoke
Street, H. N. — Lonoke
Utley, F. E. — Cabot
Ward, O. D. — England
Watson, A. C. — England
Wells, J. B. — Scott

MADISON COUNTY

Beeby, Charles — Huntsville
Hill, N. J. — Hindsville
Youngblood, Fred — Huntsville

MILLER COUNTY

Dale, R. R. — Texarkana
Daniel, N. B. — Texarkana
Fuller, T. E. — Texarkana
Hardeman, Daniel — Texarkana
Hibbitts, William — Texarkana
Hunt, Preston — Texarkana
Kelly, K. M. — Texarkana
Kirkpatrick, R. R. — Texarkana
Kittrell, T. F. — Texarkana
Kosminsky, L. J. — Texarkana
Lanier, L. H. — Texarkana
Lennard, F. M. — Texarkana
Longino, H. E. — Texarkana
Mann, Albert H. — Texarkana
Middleton, B. C. — Texarkana
Murry, H. E. — Texarkana
Robins, R. R. — Texarkana
Smiley, H. H. — Texarkana
Smith, W. D. — Texarkana
Webster, H. R. — Texarkana
Williams, J. F. — Texarkana

MISSISSIPPI COUNTY

Barksdale, Oscar — Wilson
Campbell, J. H. — Joiner
Ellis, N. B. — Wilson
Hosey, N. R. — Joiner
Hudson, Thos. F. — Luxora
Husband, F. L. — Blytheville
Johnson, I. R. — Blytheville
Lucket, J. A. — Dell
Massey, L. D. — Osceola
Polk, J. T. — Keiser
Saliba, J. A. — Blytheville
Sheddan, W. J. — Osceola
Sims, H. C. — Blytheville
Smith, F. D. — Blytheville
Stevens, C. C. — Blytheville
Tidwell, J. L. — Dell
Tipton, P. L. — Blytheville
Washburn, A. M. — Blytheville

MONROE COUNTY

Boswell, W. L. — Clarendon
Bradley, W. T. — Blackton
Dalton, M. L. — Brinkley
Dozier, F. S. — Brinkley
Dunklin, A. J. — Clarendon
Gilbrech, A. H. — Clarendon
Henry, C. A. — Clarendon
Martin, W. H. — Holly Grove
McKnight, E. D. — Brinkley
McKnight, C. H. — Brinkley
Murphey, N. E. — Clarendon
Nederhiser, M. I. — Brinkley
Terry, P. E. — Holly Grove

NEVADA COUNTY

Buchanan, A. S.	Prescott
Chastain, S. S.	Prescott
Dickey, A. B.	Prescott
Hesterly, J. B.	Prescott
Hesterly, S. J.	Prescott
Hirst, O. G.	Prescott
Shell, E. E.	Prescott

OUACHITA COUNTY

Clemens, J. P.	Mt. Holly
Early, C. S.	Camden
Hathcock, E. L.	Locust Bayou
Jameson, J. B.	Camden
Kennerly, R. C.	Bearden
McGill, S. D.	Camden
Porter, N. G.	Stephens
Plunkett, C. M.	Elliott
Powell, B. V.	Camden
Purifoy, W. A.	Chidester
Rhine, T. E.	Thornton
Rinehart, J. S.	Camden
Ritchie, C. E.	Ogamaw
Robins, R. B.	Camden
Rushing, J. L.	Chidester
Thompson, H. F.	Bearden
Thompson, Sam A.	Stephens
Wood, N. S.	Camden

PHILLIPS COUNTY

Bruce, W. B.	Marvell
Butts, J. W.	Helena
Cox, A. E.	Helena
Cox, A. W.	Helena
Ellis, J. B.	Helena
Fink, M.	Helena
Henry, Morriss	Helena
King, W. C.	Helena
Nichols, J. W.	Helena
Orr, W. R.	Helena
Rightor, H. H.	Helena
Russwurm, W. C.	Helena
Storm, George R.	West Helena

POLK COUNTY

Campbell, C. A.	Hatfield
Hawkins, B. H.	Mena
Hilton, J. G.	Mena
Lee, F. A.	Vandervoort
McElroy, F. I.	Mena
Mullins, F. C.	Wickes
Watkins, P. R.	Mena

POPE COUNTY

Gardner, L.	Russellville
Scarlett, W. P.	Russellville
Smith, R. L.	Russellville

PRAIRIE COUNTY

Adams, Edward	DeValls Bluff
Crockett, W. H.	Biscoe
Gilliam, J. C.	Des Arc
Lynn, J. R.	Hazen
Parker, James	DeValls Bluff
Parker, Luke	DeValls Bluff
Porter, H. G.	Hazen
Wilson, John G.	Ulm

PULASKI COUNTY

Aday, L. C.	Little Rock
Allen, Estes	Little Rock
Allen, H. R.	Little Rock
Arkebauer, Chas. A.	Little Rock
Atkinson, Shelby	North Little Rock
Bailey, W. E.	North Little Rock
Barrier, L. F.	Little Rock
*Bathurst, William R.	Little Rock
Bennett, B. A.	Little Rock
Blakely, R. M.	Little Rock
Bond, S. P.	Little Rock
Brooks, C. H.	Little Rock
Brown, Louis R.	Little Rock
Brown, T. Duel	Little Rock
*Browning, H. W.	Little Rock
Calcote, R. J.	Little Rock
Caldwell, Robert	Little Rock
Carruthers, F. W.	Little Rock
Cazort, Alan G.	Little Rock
Chesnutt, C. R.	Little Rock
Choate, Hoyt L.	Little Rock
Compton, J. N.	Little Rock
Coon, A. B.	Little Rock
Cosgrove, K. W.	Little Rock
Crawford, J. B.	Little Rock
Crawford, S. R.	Little Rock

*Deceased.

PULASKI COUNTY—Continued

Cummins, Bryce	Little Rock
Cunningham, J. C.	Little Rock
Darnall, R. F.	Little Rock
Davis, J. C.	Little Rock
Day, E. O.	Little Rock
DeLaney, J. P.	Little Rock
Dibrell, J. L.	Little Rock
Dibrell, J. R.	Little Rock
Dishongh, H. A.	Little Rock
Dorbandt, Barton	Burnett, Texas
Eubanks, R. M.	Little Rock
Fly, T. M.	Little Rock
Freemyer, W. N.	Little Rock
Fulmer, Paul M.	Little Rock
Fulmer, S. C.	Little Rock
Gann, Dewell, Jr.	Little Rock
Garrett, Paul	Autrey
Garrison, C. W.	Little Rock
Gray, A. F.	Little Rock
Gray, Oscar	Little Rock
Gray, W. E., Jr.	Little Rock
Hastings, Gordon	Little Rock
Hayes, J. H.	Mansfield, Ohio
Hayes, J. McD.	Little Rock
Hawkins, M. C., Jr.	Little Rock
Higgins, H. A.	Little Rock
Hinkle, S. B.	Little Rock
Hoge, S. F.	Little Rock
Howell, A. R.	North Little Rock
Howze, H. H.	Little Rock
Hundling, H. W.	Little Rock
Hurrle, F. E.	Little Rock
Hyatt, D. T.	Little Rock
Jackson, G. F.	Little Rock
Jewell, I. H.	Paris
Jobe, A. L.	Little Rock
Jones, H. Fay H.	Little Rock
Jones, J. E.	Little Rock
Junkin, S. P.	Little Rock
Kilbury, M. J.	Little Rock
Kinley, James D.	Beebe
Kirby, A. C.	Little Rock
Kory, R. C.	Little Rock
Kriesel, W. A.	Little Rock
Lamb, W. A.	Little Rock
Langston, William Cleaver	Little Rock
Law, R. A.	Little Rock
Levy, Jerome S.	Little Rock
Lewis, G. V.	Little Rock
Linzy, J. R.	North Little Rock
Mahoney, Paul	Little Rock
Matthews, W. M.	Little Rock
May, C. B.	Little Rock
May, J. R.	Roland
McCaskill, M. E.	Little Rock
McCormack, G. A.	Little Rock
McRae, W. M.	Little Rock
Melson, Madeline	Little Rock
Melson, O. C.	Little Rock
Morrow, J. K.	Norfolk, Neb.
Mountford, A. H.	North Little Rock
Murphey, Pat	Little Rock
Oates, Chas. E.	Hot Springs
Parmley, L. V.	Little Rock
Patterson, R. Q.	Little Rock
Pauli, A. J.	Lake Village
Pirnique, A. F.	Little Rock
Ponder, E. T.	Little Rock
Pryor, R. E.	Little Rock
Rodgers, Clyde	Little Rock
Porsons, Wilfred Rossner	Little Rock
Reagan, G. W.	Little Rock
Reagan, L. D.	Little Rock
Reed, C. C.	Little Rock
Regnier, W. A.	Little Rock
Richardson, W. R.	Little Rock
Riegler, N. W.	Little Rock
Rhinehart, B. A.	Little Rock
Rhinehart, D. A.	Little Rock
Robinson, Byron L.	Little Rock
Robinson, F. C.	Little Rock
Roe, Joseph	Little Rock
Rogers, F. O.	Little Rock
Russell, A. R.	Little Rock
Sadler, W. L.	Little Rock
Sanderlin, J. H.	Little Rock
Sanford, Sloan	Little Rock
Saxon, R. L.	Little Rock
Scott, Homer	Little Rock
Shearer, W. F.	Little Rock
Sheppard, J. P.	Little Rock
Shipp, A. C.	Little Rock
Shuffield, J. F.	Little Rock
Smith, Morgan	Little Rock
Smith, W. F.	Little Rock
Snodgrass, W. A.	Little Rock
Spitzberg, Irving J.	Little Rock
Staton, R. Hamilton	Kansas City, Mo.
Strauss, A. W.	Little Rock
Stover, A. R.	Oak Park, Ill.
Summers, J. A.	Little Rock

PULASKI COUNTY—Continued

Switzer, D. M.	North Little Rock
Thatcher, H. S.	Little Rock
Thompson, G. D.	Little Rock
Vinsonhaler, Frank	Little Rock
Wallace, Raymond A.	Little Rock
Wassell, C. McAlmont	Little Rock
Watkins, Anderson	Little Rock
Watkins, J. G.	Little Rock
Wayne, J. R.	Little Rock
Wayne, W. D.	Little Rock
Webb, V. T.	Little Rock
Weny, N. F.	Little Rock
White, E. H.	Little Rock
Wilkes, E. H.	Little Rock
Wilson, P. W.	Little Rock
Witt, C. E.	Little Rock
Wayman, A. M.	Little Rock

RANDOLPH COUNTY

Boltz, M. A.	Pocahontas
Brown, J. W.	Pocahontas
Hamil, W. E.	Pocahontas
Loftis, J. R.	Pocahontas
Ryburn, J. W.	Pocahontas
Throgmorton, H. B.	Pocahontas

ST. FRANCIS COUNTY

Boggan, Dr. P. P.	Forrest City

SALINE COUNTY

Buckley, E. A.	Bauxite
Blakely, M. M.	Benton
Buffington, T. E.	Benton
Burks, J. A.	Benton
Davis, W. S.	Owensville
Gann, Dewell, Sr.	Benton
Jones, C. W.	Benton
Walton, Chas. R.	Leavenworth, Kansas
Ward, W. W.	Alexander
Watson, Thos. C.	Benton
Wright, J. D.	Mablevale

SCOTT COUNTY

Bevill, Chevis	Waldron
Burnett, J. A.	Waldron
Duncan, F. R.	Waldron
Duncan, L. D.	Waldron
Duncan, B. W.	Waldron
Holitik, George F.	Waldron
Jones, Paul	Mound Valley, Kans.
Sorrell, L. B.	Waldron

SEARCY COUNTY

Cotton, J. O.	Leslie
Daniel, Sam G.	Marshall
Fendley, C. G.	Leslie
Henley, J. A.	Marshall
Leslie, J. O.	Marshall
Rogers, W. F.	St. Joe
Wood, E. W.	Marshall

SEBASTIAN COUNTY

Amis, J. W.	Fort Smith
Benefield, C. E.	Fort Smith
Benefield, J. H.	Fort Smith
Billingsley, C. B.	Fort Smith
Blair, A. A.	Fort Smith
Brooksher, W. R.	Fort Smith
Buckley, J. H.	Fort Smith
Bungart, C. S.	Fort Smith
Coffman, J. S.	Lavaca
Dorente, D. R.	Fort Smith
Dorsey, H. C.	Fort Smith
Eberle, W. G.	Fort Smith
Epler, E. G.	Ione
Foltz, J. A.	Fort Smith
Foster, M. E.	Fort Smith
Freer, B. W.	Fort Smith
Goldstein, D. W.	Fort Smith
Hall, C. W.	Greenwood
Hoge, A. F.	Fort Smith
Holt, C. S.	Fort Smith
Honomichl, O. R.	Hackett
Jeffery, T. E.	Fort Smith
Jeffery, V. J.	Fort Smith
Johnson, Hugh	Fort Smith
Johnson, J. E.	Fort Smith
Jones, E. B.	Hartford
Jones, I. F.	Fort Smith
Kennedy, C. H.	Fort Smith
Krock, F. H.	Fort Smith
Means, C. S.	Fort Smith
Moulton, E. C.	Fort Smith
Moulton, H.	Fort Smith
Nowlin, R. R.	Booneville
Redman, Pierre	Fort Smith
*Riddler, P. A.	Fort Smith
Riley, J. D.	Booneville
Rose, W. F.	Fort Smith

SEBASTIAN COUNTY—Continued

Scott, M. H. ..... Jenny Lind
Southard, J. D. ..... Fort Smith
Southard, J. S. ..... Fort Smith
Smith, H. H. ..... Fort Smith
Stevenson, E. H. ..... Fort Smith
Stevenson, J. E. ..... Fort Smith
Stubbs, S. P. ..... Fort Smith
Taylor, J. M. ..... Fort Smith
Ware, B. L. ..... Greenwood
Willingham, J. J. ..... Booneville
Wolfermann, S. J. ..... Fort Smith
Woods, G. G. ..... Huntington
Wyatt, R. B. ..... Sulphur Springs
Yankoff, P. D. ..... Fort Smith

SEVIER COUNTY

Archer, C. A. ..... DeQueen
Clingan, A. J. ..... DeQueen
Graves, J. C. ..... Lockesburg
Hendrix, B. E. ..... Gillham
Jones, Isaac G. ..... DeQueen
Kitchens, C. E. ..... DeQueen
Norwood, M. L. ..... Lockesburg

UNION COUNTY

Cathey, A. D. ..... El Dorado
Cullins, J. G. ..... North Chicago, Ill.
Dickerson, D. A. ..... Berryville
Falvey, J. C. ..... Longview, Texas
Ferguson, J. V. ..... El Dorado
Fincher, L. G. ..... El Dorado
Henry, S. S. ..... Smackover
Irby, Frank L. ..... Wesson
Levine, David ..... El Dorado
Mahony, F. O. ..... El Dorado
Mayfield, H. F. ..... Huttig
McGraw, S. J. ..... El Dorado
McCall, Daniel ..... Lawson

UNION COUNTY—Continued

Mitchell, J. G. ..... El Dorado
Moore, J. A. ..... El Dorado
Munn, E. J. ..... El Dorado
Murphy, G. D. ..... El Dorado
Newton, W. L. ..... Smackover
Purifoy, L. A. ..... El Dorado
Purifoy, L. L. ..... El Dorado
Russell, M. V. ..... El Dorado
Sheppard, J. M. ..... El Dorado
Slaughter, J. H. ..... Norphlet
Slaughter, J. W. ..... El Dorado
Smith, J. Murry ..... Smackover
Vines, C. L. ..... El Dorado
Vines, F. P. ..... El Dorado
Wharton, J. B. ..... El Dorado
White, D. E. ..... El Dorado

WASHINGTON COUNTY

Bean, J. L. ..... Morrow
Brand, Wm. ..... Springdale
Callen, C. B. ..... Fayetteville
Ellis, E. F. ..... Fayetteville
Fowler, W. A. ..... Fayetteville
Gilbert, A. A. ..... Fayetteville
Gregg, A. S. ..... Fayetteville
Harr, H. T. ..... Fayetteville
Hathcock, Alfred ..... Fayetteville
Hathcock, Preston L. ..... Fayetteville
Hathcock, P. L., Sr. ..... Fayetteville
Houston, Hugh ..... West Fork
Henry, R. T. ..... Springdale
McCormick, E. G. ..... Prairie Grove
Mock, Will H. ..... Prairie Grove
Morrow, F. R. ..... Fayetteville
Paddock, C. S. ..... Fayetteville
Richardson, Fount ..... Fayetteville
Riggall, Cecil ..... Prairie Grove
Roberts, D. C. ..... Fayetteville
Robinson, J. A. ..... Summers

WASHINGTON COUNTY—Continued

Sisco, C. P. ..... Springdale
Walker, J. W. ..... Fayetteville
Wood, H. D. ..... Fayetteville
Wentz, H. B. ..... Elkins

WHITE COUNTY

Abbington, E. H. ..... Beebe
Allbright, Sam J. ..... Searcy
Clark, W. A. ..... Bald Knob
Emerson, A. G. ..... Bald Knob
Felts, W. R. ..... Judsonia
Hardy, F. P. ..... Searcy
Harrison, A. G. ..... Searcy
Havener, J. B. ..... Beebe
Hudgins, A. H. ..... Searcy
Moore, L. E. ..... Searcy
Parker, Orlie ..... Searcy
Peeler, C. M. ..... Pangburn
Rogers, Porter ..... Searcy
Sloan, D. W. ..... Beebe
Spain, A. L. ..... Letona
Tapscott, S. T. ..... Searcy

WOODRUFF COUNTY

Biles, L. E. ..... Augusta
Brewer, E. F. ..... Augusta
Brown, E. B. ..... Cotton Plant
Dungan, C. E. ..... Augusta
Fraser, R. L. ..... McCrory
Hays, J. F. ..... McCrory
Maguire, F. C. ..... Augusta
Morris, J. W. ..... McCrory
Murphy, Frank ..... Cotton Plant
West, J. H. ..... Grays
Wilkins, W. T. ..... Cotton Plant

YELL COUNTY

Millard, Roy I. ..... Dardanelle
Montgomery, H. L. ..... Gravelly

*Deceased.

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Original Article

TUMORS OF THE SMALL INTESTINE*

H. W. HUNDLING, M. D., F. A. C. S.
Little Rock

The embryological, anatomical, and physiological differences between the small intestine, the stomach, and the large intestine, may account for the fact that the small intestine is relatively insusceptible to tumor formation, especially since it is comparatively free from stasis. Practically the only portion of the small intestine in which the fecal contents are brought to a standstill and accumulate is the terminal ileum, and since stasis is thought to be conducive to irritation, we may surmise the reason for the relative prevalence of tumors in this region.

Figures from the large medical centers give us an idea of the relative rarity of small intestinal tumors. Raiford reviewed all the available material in the Johns Hopkins Hospital, and found only eighty-eight such cases. He found that tumors of all types in the small intestine constituted 8.9 per cent of all gastro-intestinal tumors. Benign tumors in the small intestine constituted 23.8 per cent of all benign tumors, and malignant tumors only 4.9 per cent of all malignant tumors of the gastro-intestinal tract. The most common tumors were of the lympho-blastoma group, that is, neoplasms arising from lymphoid tissue as atypical cell types, and numbered 21, eighteen of which were in the ileum. Carcinomata numbered 16, of which 8 were found in the duodenum, 4 in the jejunum, and 3 in the ileum Adenomata, 15 in number, were the next most common, and eleven of these were located in the ileum. Of the carcinoid tumors, there were five in the ileum, one in the duodenum, and one in the jejunum. The other tumors of importance were lipomata, tumors formed by accessory pancreatic tissue, and fibromata.

Small intestinal tumors may be intralumenar or extralumenar, but the majority of them, especially the benign ones, are of the internal type. These may be polypoid, in which case they are usually benign, but may undergo secondary malignant changes. Many of these probably are adenomata, and when they develop a pedicle and reach considerable size may cause symptoms of obstruction. Sessile tumors may be found within the wall of the intestine or attached to the wall by a broad base, and are usually loosely covered by mucous membrane. The malignant tumors usually originate in the wall of the intestine and extend rapidly either around the lumen or in a longitudinal direction, in some cases causing practically complete obliteration of the lumen.

The etiology of tumors of the small intestine is unknown. Occasionally they are found in infants, but most frequently in adults between the ages of 25 and 40 years. Clinically they may be divided into the submucous and subserous varieties. Many of them cause no symptoms and are discovered accidentally at autopsy. Those that develop beneath the mucosa may ulcerate through and cause intestinal hemorrhage or obstruction by obliteration of the lumen. The subserous type may remain silent for a long period, and then reach such proportions that they are recognizable on palpation, without assuming any characteristic shape.

Since the duodenum is so frequently involved in ulceration, it is interesting to note briefly its role in tumor involvement. Balfour in 1928 reported six cases of duodenal tumors; there were two myomata, two adenomata, one adenomatous polyp, and one hemangioma. Congenital cysts have been found, and occasionally a pedunculated tumor is present which may be invaginated through the sphincter muscle into the stomach.

*Read before the Fifty-eighth Annual Session of the Arkansas Medical Society held in Hot Springs National Park, May 2, 3, 4, 1933.

King reported a series of 119 cases of benign tumors of the intestine in 1917, and of these there were five in the duodenum, consisting of one fibroma, one lipoma, one telangiectatic tumor and two myomata. One case was reported in which two neurofibromata associated with generalized neurofibromatosis were found in the duodenum. Tumors in the duodenum may produce symptoms of ulcer, severe hemorrhages may occur at times and obstruction has been noted. As a rule the diagnosis of duodenal tumor can be made by X-ray examination unless the tumors are very large.

In the complete series, reported by King, which included the entire intestinal tract, there were five benign tumors in the duodenum, eight in the jejunum, one in the appendix, twenty-two in the colon, twenty-three in the ileum, three in the ileo-cecal region, thirty-six in the rectum, and eleven undesignated in the small intestine.

Angiomata seem to arise principally in the submucosa, and tend to invade the muscular coat, sometimes to a point beneath the peritoneum, but the latter usually remains intact. They may range from naevi to cavernous angiomata. Helvestine collected fourteen cases of hemangioma of the small intestine, and found most of them in the jejunum and upper ileum. They were mostly small in size, and were definitely related to the veins of the submucosa. Hemorrhage occurred in four cases, and proved fatal in two. Bleeding from an angioma in the small intestine may simulate duodenal ulcer. Mucosal ulceration with hemorrhage, intestinal obstruction, and occasionally intussuseeption may result from angiomatous formation.

Adenomata are probably the most common benign tumors found in the small intestine, and develop at the expense of the epithelial cells of the mucosa, but rarely attain sufficient size to cause symptoms of obstruction. They may be found in patients from six months to sixty years of age. Although relatively rare in the jejunum, they increase in frequency toward the lower part of the intestinal tract, and are seen occasionally at a Meckel's divesticulum. Adenomata constitute a large percentage of the group of tumors classed as polypi and papillomata, although not infrequently they are sessile, especially in the early stages. These tumors are thought to be due to inflammation, but primary epithelial changes may occur. Intestinal adenomata of the endometrial type occur with ectopic endometrial adenomata, in about 10-20 per cent of women between thirty years of age and the menopause, and periodic hemorrhages of the menstrual type may occur. The menstrual blood may be unable to escape, sometimes causing a hematoma and occasionally an obstruction, or it may escape into the peritoneal cavity, possibly carrying with it epithelial cells which may give rise to further implantations. It has been suggested that these tumors may be made to retrogress by establishing an artificial menopause.

Polypi are more often multiple than single and are formed by glandular hyperplasia. They are found most commonly in the ileum, and occur more frequently in males than in females.

Fibromata are not common in the small intestine, but occur most frequently in the ileum. They are usually found in patients of advanced age, may grow internally as pedunculated growths, may extend out into the mesentery, or may be free in the peritoneal cavity as external tumors. Fibromata may become as large as an infant's head, and frequently cause obstruction, with the pain usually remaining localized. They are fairly common on the right side of the abdomen, and not infrequently the condition is mistaken for appendicitis. There is intermittent colicky pain and nausea, but the nausea, a very important symptom, usually clears up as soon as the pain is relieved. Vomiting is not marked until intussusception occurs, but alternating diarrhea and constipation are frequent symptoms. In some cases there is considerable loss of weight, and bleeding varies from small to large amounts.

Lymphoblastomata involve the small intestine about twice as frequently as the large intestine. These neoplasms may occur at any age but are more common in young persons than other malignant tumors. They are found most frequently in the terminal ileum, and do not metastasize as readily as carcinomata or sarcomata, but when they do the adjacent mesenteric lymph nodes are chiefly involved. The most common form is that of the constricting growth encircling the intestinal lumen. Raiford believes lymphoblastomata must be considered potentially malignant un-

til the clinical course proves them benign. True lympho-sarcomata, because they cause relatively late stenosis, are usually quite far advanced before symptoms of obstruction are evident. Sarcomata in general are rare, occur most often in the ileum, do not metastasize readily, and usually grow into the mesentery, rather than into the lumen of the intestine. Early excision in these cases frequently results in complete recovery.

Myomata are most common in the ileum, occur at about the fifth decade, and are found most frequently in the male. They may undergo hyaline degeneration, calcification, or malignant changes. Various combinations of the above tumors may be encountered, and Raiford states that aberrant pancreatic rests and cysts may also be found in the small intestine.

Lipomata of the gastro-intestinal tract are either submucous, that is, growing into the bowel, or subserous, growing into the peritoneal cavity. The former comprises the largest group, but frequently no symptoms are produced. They are more common in the large than in the small intestine, and 72 per cent occur within the cancer age. Derocque collected 49 cases in the small intestine; 40 of these were in the jejunum, 8 in the duodenum, and 1 at Meckel's diverticulum. Lipomata may be multiple, sometimes number 6 or more, and the growth is slow. In the submucous type the mucosa grows upward, becoming pedunculated, and the pedicle may break, allowing the tumor to pass by rectum, or occasionally causing intussusception. The external or subserous type may become very large, and may be free in the abdomen or become attached to the mesentery. Lipomata should be thought of if the patient is obese, if the tumors are present elsewhere in the body, or if the benign character of the lesion is considered.

Carcinomata of the small intestine comprise about 2 to 3 per cent of all intestinal cancers. Butt found in 3,563 collected cases of malignant tumors of the intestines, only 89 or 2.5 per cent involving the small intestine. Judd and later Rankin and Mayo reported a total of 55 operative cases of carcinomata of the small intestine from the Mayo Clinic. During the period in which these tumors were encountered, there were 4,597 operations for carcinoma of the large intestine, and 4,355 operations for carcinoma of the stomach. Males are affected more commonly than females, and the growth usually develops in middle life. Ulceration occurs fairly early and stenosis relatively so. The prognosis is best when the growth is in the jejunum, and bad when present in the ileum. Carcinomata of the small intestine should be divided into true adenocarcinomata and the carcinoid tumors. The latter are considered by some as non-malignant, have been compared to basal-cell carcinomata of the skin, and are sometimes called rodent ulcers of the intestine. Usually the growths are single, extend by local invasion and metastasize either not at all or very late, but cases have been reported in which extensive secondary tumors have been found in the lymph nodes and liver. True carcinomata comprise the largest group of malignant epithelial tumors of the small intestine. Occasionally they may arise from some pre-existing intestinal polyp, and metastases are quite common. Schlieps found metastases in the mesentery, liver, lungs and peritoneum in 16 of 42 cases of cancer in the small intestine. Of 36 cases of cancer of the small intestine reported from the Mayo Clinic, glandular involvement was found in 53 per cent.

Symptoms of cancer of the small intestine are usually vague before the onset of obstruction. There is usually abdominal pain, associated with vomiting, increasing constipation and rapid emaciation. As obstruction progresses, alternating constipation and diarrhea result. Since ulceration is fairly common, occult blood may frequently be found in the stool. Roentgen-ray examination may be of aid in the diagnosis, but is not always reliable. It has been considered a safe plan, that patients with the above signs and symptoms, in whom no other pathological findings can be found to account for the symptoms, should be given the advantage of an exploratory laparotomy with a careful search of the entire intestinal tract, in order to avoid overlooking small malignant lesions.

The tumors of the small intestine as a group may cause very indefinite symptoms. There may be a moderate amount of pain after the ingestion of food. It may be intermittent or colicky in character and usually originates and remains in one place. Vomiting may occur. There may be alternate constipation and

diarrhea, and certain types of tumor will produce blood in the stool. Solitary tumors are rarely diagnosed pre-operatively, but the case which I am reporting was diagnosed by roentgen-ray examination, in conjunction with the history. An almost identical case in which practically the same type of growth was found was reported by Rankin recently, in which roentgen-ray examination revealed a tumor in the ileum, which proved at operation to be a myxofibroma.

Obstruction with the benign tumors is more often responsible for intussusception than obstruction with malignant tumors, in the ratio of 2 to 1, and the mechanics are ideal for it. A pedunculated tumor is caught in a peristaltic wave and forced ahead so rapidly that the bowel wall is drawn along after it, and intussusception readily takes place. The benign tumors remain soft and pliable, produce less irritation, and predispose to inversion as noted in intussusception, while malignancy renders the bowel thicker and firmer and more difficult to infold. Occult blood in the stools on repeated examination, in the absence of ulcerative lesions of the colon, rectum and stomach, should call for careful examination of the small bowel.

The treatment of tumors of the small intestine depends on the presence or absence of complications. Intussusception caused by intra-intestinal neoplasms calls for immediate operation, and if conditions warrant it, resection of the portion of the bowel containing the growth. If a benign tumor is enucleable, enterotomy may be done and the bowel wall restored. In malignant growths of the small bowel, extensive resection of the involved area, together with any involved lymph nodes and the corresponding V-shaped section of mesentery should be removed. End to end anastamosis is preferable, because it results in perfect restoration of intestinal physiology, whereas following side to side anastomasis there may be some stasis; an enterostomy just proximal to the anastomosis is sometimes advisable.

My patient, a man 56 years of age, manager of a bottling plant, came to us in October, 1930, complaining of pain in the lower abdomen, which had recurred intermittently over a period of eight years, but had become severe six weeks before the examination. There was a history of hunger sensation with food ease and belching with relief. Qualitative food distress was noted. Constipation was marked and laxatives were used daily. Physical examination was essentially negative except for tenderness in the region of the umbilicus, and some tenderness and fulness in the right lower quadrant.

The laboratory reports were essentially negative; *X*-ray examination of the stomach and duodenum revealed a deformity suggestive of duodenal ulcer, but because of marked spasm at the pylorus belladonna was prescribed and the patient requested to return for further study. He came to St. Vincent's Infirmary about ten days later with symptoms of partial intestinal obstruction, and while under observation improved sufficiently so that *X*-ray examination of the entire intestinal tract seemed justified. Doctors Rhinehart and Gray diagnosed the condition as a tumor in the lower ileum probably benign, because it moved as a mass, indicating that infiltration of the surrounding tissue was not present. On November 10, 1930, under ethylene anesthesia a firm kidney-shaped tumor mass, measuring about 6x14 centimeters was found in the lower ileum, associated with an extensive intussusception, above which point the bowel was distended to about four times the normal size. About nine inches of the bowel was resected and a side to side anastomosis made because of the great disproportion

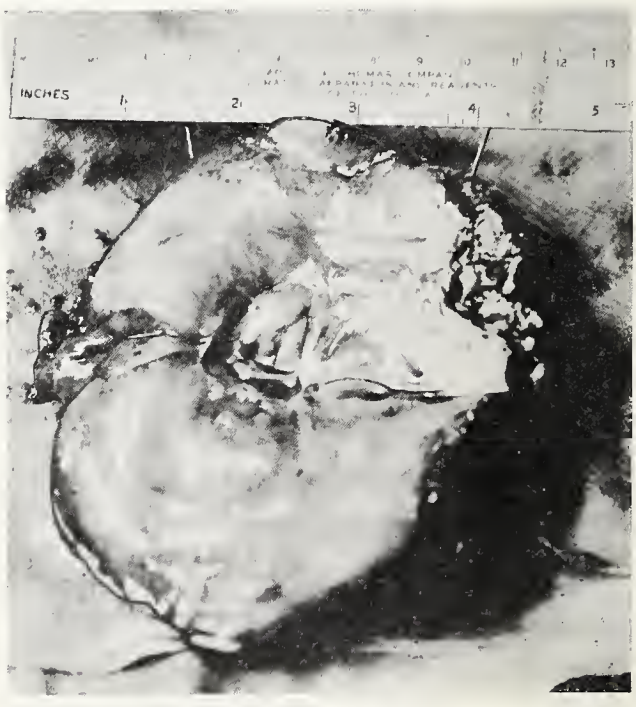

Fig. 1. Cross-section of Fibro-myxoma.

of the segments. The patient made an uneventful recovery, and in answer to my follow-up letter one month ago, states that he has no pain or discomfort, but still is moderately constipated. The tumor was a fibro-myxoma. (Figure 1.)

Conclusions

1. Tumors of the small intestine are comparatively rare; the lower ileum is most frequently involved.

2. In the small intestine benign tumors are more common than malignant tumors.

3. The etiology of small intestinal tumors is unknown.

4. Symptoms of small intestinal tumors are indefinite; many tumors cause no symptoms and are discovered accidentally at autopsy.

5. Tumors of the small intestine may cause hemorrhage, obstruction and intussusception; occasionally a tumor is passed by rectum.

6. Diagnosis of small intestinal neoplasm can be made by roentgen-ray examination at times.

7. A case is reported in which a diagnosis of benign tumor of the ileum was made by roentgen-ray examination in a man 56 years of age, a large fibro-myxoma was found, and a good recovery made following a partial resection of the ileum.

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DISCUSSION

DR. M. E. FOSTER, Fort Smith: First, I want to tell Dr. Hundling that we have enjoyed his paper very much. He has made it very interesting and instructive.

This subject is interesting for two reasons: First, the condition is hard to diagnose early as the early symptoms frequently are very vague; and yet the earlier we diagnose the condition and apply the proper treatment, especially in the malignant cases, the lower our mortality will be. Second, the condition is fairly unusual, and most of us like the unusual.

We have had only one case, a carcinoma of the jejunum. The patient was a Christian Scientist and had allowed the condition to progress to almost complete obstruction. The diagnosis, in this case, however, with the aid of the X-ray, was quite easy. The patient was thin, the tumor could be easily felt, and the visible peristaltic waves were marked.

I was very much excited last week. I saw a woman, age 65, with a small movable mass near the umbilicus, marked visible peristaltic waves, history of alternate constipation and diarrhea, no vomiting, a sensation of fullness, with pain at times after eating, and I thought surely we were going to add another case of small intestinal tumor to our series of one. The X-ray, however, spoiled our playhouse, as the roentgenologist gave us a diagnosis of carcinoma of the pyloric end of the stomach, which was verified several days later by operation.

One of the things that impresses you in reading reports of these cases is the long period of time over which the symptoms extend. In a series of cases reported by Rankin and Mayo in Surgery, Gynecology and Obstetrics in June, 1930, the time ranged from two or three months to five years or more, the average being fourteen to fifteen months. Kahn in Los Angeles, reports a case of myoma of the jejunum with symptoms of fifteen years' duration with blood in the stools for three years before operation.

The etiology of tumors of the small intestine, as Dr. Hundling has stated, is unknown. When we know the cause of breast tumors, uterine tumors, ovarian tumors, etc., then we will probably know the etiology of intestinal tumors.

To me the cause of the infrequency, or the lack of cause of infrequency of tumors in the small intestine is as interesting as the cause. Theoretically there are two reasons for this infrequency: first, the lack of irritation due to the liquid content of the intestine, its alkalinity, the absence of abrupt bends, and the fact that the food materials pass through quickly. In fact, everything moves along swiftly, smoothly and sweetly, and there is very little stasis. Stasis is a cause of irritation; does occur in the terminal ileum, and the greatest number of tumors are found here, according to Raiford. Second, the embryonic theory of Cohnheim seems plausible. The small intestine develops chiefly during the last four months of foetal life and there is far less opportunity for arrested development and misplaced embryonic tissue here than in the rest of the gastro-intestinal tract.

Dr. Hundling has mentioned and thoroughly discussed the different types, kinds and varieties, the intralumenar and extralumenar, polypoid and sessile, malignant and benign, carcinomata, sarcomata, adenonata, fibromata, lymphoblastomata, myomata, lipomata, angiomata, neurofibromata, carcinoids, cysts, polypi, and pancreatic rests. In fact it seems that practically any tumor which is found in any other part of the body has been found in the small intestine except corns, bunions and exostoses, so I will not discuss them except to mention the carcinoids and the adenomata of the endometrial type as they are rather unusual types of tumors.

Cooke published a very comprehensive article "Carcinoid Tumors of the Small Intestine" with a review of the literature in the June, 1931, issue of Archives of Surgery. These tumors occur in the ileum more frequently than in any other part of the small intestine, but occur more often in the appendix than in the ileum. The lesion is generally single but may be multiple. In seventy-six cases Cooke reports that the number of nodules varied from one to thirty-three; single nodules occurred in forty-nine cases, and multiple nodules in twenty-seven cases. The condition can be benign or malignant. About 20 per cent are malignant. It has been compared to baso-cell carcinoma of the skin and there are certain resemblances, but a histologic study reveals quite a difference in structure. In the malignant cases metastasis may occur to the regional lymph nodes, mesentery and liver but a case of general metastasis has never been reported. As a rule the tumors are small, submucosal, hard, grayish white nodules but they may, however, grow very large; large enough to cause obstruction.

Adenomata of the endometrial type are, according to Sampson, caused by the implantation of endometrial tissue, and according to him occur more often than most of us realize. He states that this type of tumor occurs in more than one-half of the cases, with ectopic endometrial adenomata, and the latter may be found in from 10 to 20 per cent of women between 30 years of age and the menopause who require surgery for some disease of the pelvic organs. It is well to remember that these lesions, if too extensive to be removed, can very probably be cured by oophorectomy, as they are dependent upon ovarian activity, and with the cessation of ovarian function, atrophy of the tumor follows.

The essayist has fully covered the symptoms which may occur, with possibly two exceptions. These two symptoms may occur in any tumor of the small bowel but most probably are even more often in the malignant types; first, visible peristalsis which was so marked in our case; second, a slowly developing but progressive anemia. In fact the anemia may be the first change noticed in the patient, and in an unexplained secondary anemia, the possibility of a malignancy of the small intestine should be considered.

The diagnosis as the essayist has said, can be very difficult, as the symptomatology is at times very obscure.

In summing up the symptoms, a history of recurring cramps without indiscretions in diet, or intermittent attacks of intestinal obstruction, may point out the correct diagnosis.

X-ray examination in most instances is of valuable assistance, but Raiford says: "Negative findings do not rule out a lesion; positive findings do not necessarily indicate a tumor." The symptoms may simulate appendicitis and if any of us ever open an abdomen and find a normal appendix, it might be well to look for a tumor in the terminal ileum.

As stated by Dr. Hundling the treatment of tumors of the small intestine is surgical, the type of operation depending on the type of condition present. It seems, however, from the reports that the best we can hope for in the malignant tumors is a few months or years of added life, as I believe there has been only one reported case that has lived longer than five years.

DR. HUNDLING, in closing: I thank Dr. Foster for the discussion. I will not take up more time except to say that since I wrote the paper two cases were reported in the April issue of Surgery, Gynecology and Obstetrics by Dr. Dixon, of the Mayo Clinic, in which two myomata were found in two cases in males 57 years of age, and both located in the jejunum.

Original Article

THE VALUE OF CORRECTLY FITTED LENSES IN MODERN OPHTHALMIC PRACTICE*

L. Herbert Lanier, M. D., Texarkana

Glasses are as much a medicine for the diseased and complaining eyes as is digitalis for a diseased heart. Do you think the pharmacist should administer digitalis? The eye must not be regarded as a separate organ but as a highly specialized part of the whole body and the ordering of glasses does not consist merely in placing lenses before the eye specifying that which seems to give the best vision. The choice of glasses is a delicate operation. He alone is successful in it, who to a perfect theoretic acquaintance with the subject adds the intelligent observation of each patient. It does not suffice to know the action of lenses and the workings of the visual organs. The state of accommodation and refraction and that of the muscle of the patient's eyes must be considered as well as the particular purpose for his wearing glasses and the peculiar habits and the constitutional state of the patient. Physicians who do not refract eyes should send their patients needing such services to a competent ophthalmologist.

Asthenopia is expressed subjectively more than objectively. The patient complains of the eyes feeling tired and painful. In addition, headache, pain in the back, nausea, dizziness, as well as numerous remote disturbances may be present. Over taxed accommodation is the principal cause. However, irritation of nasal mucous membrane may give rise to asthenopia from which arises a decided and unusual degree of conjunctival irritation.

A typical subjective symptom is indistinetness of vision after prolonged work on near objects. In addition to the blur of print there will be pain in the eyes and especially headache, either frontal, temporal or general.

In investigating etiology we may encounter large refractive errors, but it must be emphasized that in susceptible persons small errors, especially hyperopic astigmatism calling for a cylinder with axis nearly vertical, or even small degrees of hyperopia, demand exact correction. As a matter of fact we have often to deal with a susceptible organism and because it is easily set ajar, we must remove even minute sources of disquietude. For this reason we are called upon to use atropia very often for such subjects. They may have notable photophobia and this at the beginning may be aggravated by mydriasis, but perseverance is advised until all spasmodic and painful accommodation is abolished including photophobia.

It sometimes happens among these subjects. that atropine causes headache which may be very severe. In many cases general tonics and rest of the eyes will be the chief reliance.

Undoubtedly too few prisms are prescribed to give balance in muscular insufficiency. Von Graefe was the first to call attention to the subject of muscular insufficiency and more particularly of the internal recti in myopic eyes. He did not omit to mention its existence under other refractive conditions, but since his time the field of inquiry has greatly widened. We always take account of the refractive state, but while myopia undoubtedly carries with it many and serious conditions of muscular trouble, this fault is exceedingly common both in other forms of ametropia and in emmetropia. We have to do chiefly with disturbances of adduction and abduction, while a small number of cases exhibit errors in the movements upward and downward. We have referred to the intimate relation which exists between accommodation and convergence and we know how greatly this is modified by the refraction. Attention has been chiefly directed to muscular errors as they are developed at the working point, and it is here that the chief strain occurs, but it is found that their study at the far-point is more often of controlling importance. If the working point, as in myopia or amblyopia, be very close, the high angle of convergence aggravates the strain in rapidly increasing ratio.

Whatever be the degree of adductive effort, it is needful to have a certain amount of reserve and it is also needful to possess a sufficient abductive capacity to balance adduction.

Landolt declares that there must be converging power in reserve twice as great as that which is being employed, but this fails to take account of cases where defect of abductive power leaves adduction almost unchecked.

*Read before the Fifty-eighth Annual Session of the Arkansas Medical Society held in Hot Springs National Park, May 2, 3, 4, 1933.

There is no substitute for a medically trained mind in the treatment of disease. If persons cannot qualify to the high standards of the medical profession they have no moral right to attempt to apply inferior and ineffective substitutes designed to overcome their edueational and professional handicaps, especially in connection with our school children.

It should be stated with emphasis that there is no substitute for retinoscopy under complete mydriasis in any doubtful refractive or ocular muscular condition. The numberless measures introduced as substitutes for this seientifie procedure fully confirm this statement.

Nearly every oculist can recall many patients he has seen with asthenopie symptoms, viz., discomfort produeed by attempts at near work, vertigo, indistinet vision, photophobia, frontal headache, laehrymation, etc., all relieved by prescribing proper lenses to take the plaee of improper lenses or none at all.

This "panorama" of symptoms usually appears after gazing at moving pietures, from shopping, riding on railway trains, automobiles or street cars and in other occupations where the eye mostly fixes distant objects.

Correet lenses, prisms, plus and minus spheres and eylinders according to indication, in paralysis of the ocular muscles, strabismus and high degrees of myopia afford the patient so much relief that we think the life of an ophthalmologist has its compensations after all.

Frequently ophthalmologists may test their skill in the proper diagnosis and management of disturbances of motility of the eyes; in paralysis of the ocular muscles where one must determine which muscles are affected; whether all are affected; whether there be paralysis of the third nerve; whether the lesion be eentral or peripheral; whether the lesion be a neighboring exudation, hemorrhagic periostitis, tumor, injury vascular change, inflammation or degeneration of the third nerve.

In chronic cases with moderate paresis prisms may neutralize the diplopia and add to the patients comfort. Prisms stronger than 5 degrees for each eye (10 degrees in all) cannot be worn on account of their weight and chromatic aberration. Ground glass before the deviating eye will prevent the annoying diplopia.

Strabismus is usually seen as the convergent concomitant variety, this form of squint (estropia) with deviation inward of the visual line of one eye, is generally associated with hyperopia, with or without hyperopic astigmatism; rarely it oecurs in myopia and in emmetropia. It usually commences in early life, between the first and fourth years when the child begins to use his accommodation for near objeets such as toys and pictures.

The acuteness of vision in the squinting eye is often considerably reduced and there may be marked amblyopia, whether the squint preeedes, producing the amblyopia, or whether the amblyopia is originally present and is the cause of the squint is one of the unsettled questions in ophthalmology. Probably in most instances the amblyopia is acquired from disuse of the squinting eye.

Treatment comprises: (1) the eorreetion of refraetive errors by glasses, (2) exercise of the squinting eye by oecluding its fellow, (3) instillation of atropine, (4) the training of the fusion sense (orthoptic training), and (5) operation.

Non-operative treatment. The error of refraction should be estimated under homatropine or atropine and eonvex glasses correcting very nearly the total hyperopia (also the astigmatism, if present) prescribed for constant wear. In slight cases especially if periodic, this sometimes effeets a cure. Glasses may be worn by children of two years and upward. It is sometimes advisable to keep the eyes under the influence of atropine for a week when the glasses are first worn.

The fixing eye should be covered by a patch or bandage for one hour three times a day or the occlusion may be continuous. This compels the squinting eye to fix, exercises it, prevents amblyopia from disuse and restores, so far as possible, the sight of the deviating eye if amblyopia already exists. Atropine should be instilled into the fixing eye so that the latter eannot be used for near vision, thus eompelling the child to employ the squinting eye for seeing close objects. One drop of a one per cent solution or ointment is used every morning; the practice may be kept up for months.

Since it is well known that changes oeeur in the refraction of the eye under a variety of eircumstanees, it should not be a matter of surprise when we find, on examining eyes

at an interval of a year or more, that a considerable change has occurred in the refraction with the appearance of new symptoms of eye strain or the reappearance of old symptoms, with or without an impairment of vision. All of these are remedied by suitable changes in the glasses. Therefore glasses which correct the error of refraction today may not be the proper lenses a month or six months later.

Sudden and radical changes in the refraction especially in one eye in the direction of an increase in hyperopia and astigmatism may occur if the patient is old enough to have a snspension of accommodation the cause may be inexplicable. True it may follow an operation or an exhausting constitutional malady but changes occurring so suddenly cannot always be explained.

Any operation on the cornea, such as the incision for the removal of a cataract, will cause, as we all know, a marked degree of astigmatism with the axis roughly parallel to the direction of the incision. Injuries or ulceration of the cornea can also produce such a result, though often of a highly irregular character. The operations of iridectomy, iridotasis and others do not produce nearly so high a degree of astigmatism, as a rule, as that which follows the cataract operation. Of course a change of lens is necessary following such an operation.

Gould says, "Refraction is a science and an art in intimate union and requires as much patience, delicacy of perception, fineness of judgment and discrimination as any scientific work in the world." In relation to it are vast fields of inquiry which the wisest have hardly begun to explore. The amount of human misery caused by these ocular defects is appalling, and if the prevention and relief of that misery be the motive of scientific medicine, no branch is more important or demands higher powers of mind than that of ophthalmology, the practice of which is nine-tenths refraction.

DISCUSSION

DR. H. J. G. KOOBS, Rogers: I am glad that Dr. Lanier presented this paper to us today as I believe that the general practitioner quite frequently pays very little attention to the causative factor of eye strain in the etiology of the symptom complex presented by certain patients, or makes use of the opportunity for help afforded by a careful eye examination by a competent eye specialist, in making his diagnosis.

I need only to remind you how, by looking at some horrible sight, we may become nauseated or when seeing some one bite into a sour lemon, how it will start the saliva in our own mouths, to suggest to you the influence of vision over various body functions.

Every physician (when he gives the matter any thought), recognizes, of course, that the eye is subject to various malformations producing hyperopia, myopia, astigmatism or a combination of these; that such errors of refraction in turn give rise to various functional disorders, fatigue, nervous irritability and circulatory disturbances, not necessarily localized in the eye, but in various parts of the head, in the paths of nerves connected with the eyes, or reflexly in other parts of the body.

It should be remembered also that the interior of the eye is the only place in the body where the naked blood vessels can be plainly seen, permitting the frequent diagnosis of pathological conditions of the vascular system and kidneys by intraocular inspection.

About 90 per cent of choked disks (usually bilateral) are an evidence of brain tumor. It should also be remembered that we have squint, double or blurred vision as a result of imbalance of extraocular muscles and that this may be either organic, paretic, paralytic or functional, due to errors of refraction, to intoxications tumors, etc.

I am sure that we all concede that eye troubles, either functional or organic, play quite a large part in the etiology of complaints of the various patients that come to us for relief. Now the question is: "What do we do about it?" We all know that the average medical student (unless he plans on taking up the eyes as a specialty) pays comparatively little attention to this part of his medical curriculum, feeling that he is going to leave that to the specialist and perhaps rightly so, because it is a field that calls for a lot of special study and armamentarium and it is simply impossible for any man to go into all the details in each department of his medical education. The fact is that unless an individual has given this field of ophthalmology and optometry a great deal of attention, he had better refer his patients to someone who has when occasions demand it.

Now when you have a patient whom you think may have some eye trouble or needs glasses, to whom do you refer him? Do you stop to consider the difference between an optician, optometrist and oculist or does it mean all the same to you? Do you remember that strictly speaking an optician is one who manufactures or sells optical appliances, an optometrist is one who measures the ocular refraction and that an oculist or opthalmologist is a physician who has had a regular medical training, but who has given additional study and especially equipped himself for the handling of all eye trouble. Anyone of these is commonly called doctor which really means nothing, and I think that the oculists had better be called eye physicians.

Optometry is really a branch of the science of physics and while an optometrist may be perfectly competent to measure the refraction and even the muscular balance of the eyes, he is not a physician, trained in the various physiological and pathological conditions of the eyes, and unless purely an error of refraction exists, is naturally not competent to give your patient the desired information and help.

I have no quarrel whatsoever with the profession of the optometrists; many of them are perfectly competent to fit glasses properly when that is all that is needed. When they can induce the laity to come to them with their eye troubles, it is merely a business proposition with them and as such, probably quite legitimate.

However, recognizing the fact that many eye troubles exist that are not due to errors of refraction, and that certain errors of refraction can only be detected by the use of some mydriatic (which the optician or optometrist is by law prevented from using), and that it is very important that a correct diagnosis be made, the physician and the laity as well ought to know the difference between opticians, doctors of optometry and competent oculists or eye physicians and be governed accordingly.

DR. LANIER, in closing: I think Dr. Koobs has very cleverly and comprehensively covered the salient points and most interesting parts of my paper and I am delighted with his discussion of it.

I note that he says the optometrist may be competent to measure the refraction and even the muscular balance of the eyes. I also believe that a few can, but out of personal acquaintance with dozens of them, I have never known one who was equipped with the proper appliances to do muscle work, even granting that they knew the technic of doing it. I readily admit that optometrists get better fees for their work than do the more competent eye physicians. This is something for the general practitioners to think of in referring eye cases for refraction.

I recently treated and refracted a case that has been going to an optometrist for a frequent change of lenses for four years. Remembering the usual premonitory symptoms of glaucoma to be frequent desire to change the reading glasses, periodical obscurations of vision, and the appearance of halos about lights, I examined and found all these symptoms in this patient. She has glaucoma, one of the most serious of all eye diseases, yet the optometrist did not know it.

Do you know that a great many lenses prescribed today are second, third or even fourth grade. They have carbon and silica spots in them, air bubbles and sand spots, striae or waves, imperfect fusing, imperfect curves and imperfect polish. Such lenses are injurious to the eyes and no competent ophthalmologist will prescribe them. Yet you see otherwise intelligent people go to chain stores and obtain such lenses. It should be unlawful to sell such junk.

Of the opthalmic lenses that are manufactured and sold in this country, it is estimated that about twenty per cent are purchased on prescriptions of ophthalmologists, about twenty per cent on prescriptions of recognized legitimate optometrists, about forty per cent from chain store optical houses, drug stores and the like, and about twenty per cent are sold over the country by "pick-them-out-yourself" methods. It is further estimated that more than seventy million ophthalmic lenses are sold each year and I believe that not over thirty-five per cent of them are of first quality and correctly adjusted to the eyes.

Now if as Gould says "ninety per cent of all ophthalmologists' work consists in fitting glasses and they do only twenty per cent of all refractions, then indeed we feel justified in inviting your attention to the fact that your patients may obtain better service for the same or less money and incidentally, help the eye physician.

Personal and News Items

Dr. I. G. Jones, DeQueen, attended clinics in New Orleans the first week in December.

Dr. Guy Hodges, Rogers, has been elected a director of the Chamber of Commeree for a three-year term.

Dr. C. S. Holt, Fort Smith, has been reappointed a Trustee of the Arkansas Tubereulosis Sanitarium by Governor Futrell.

Dr. J. F. John, Eureka Springs, addressed the Woman's Club of that city November 23rd on "Child Health and Welfare."

Dr. F. M. Seott, Paragould, suffered fraetured ribs and minor injuries in an automobile aeeident on November 23rd.

Dr. W. J. Curry, Rogers, was a guest of honor at a meeting of the Rogers Masonic Lodge on November 13th. Dr. Curry has been a member of the lodge for 44 years.

Drs. Walter Eberle and Everett Moulton, Fort Smith, spent a week during November in post-graduate study of comparative anatomy near Stuttgart.

Dr. F. H. Kroek, Fort Smith, was the guest speaker at the Cancer Control program held by Crawford County Medieal Soeiety at Van Buren, November 28th. Dr. Kroek spoke on "The Prevention of Cancer."

Honorable mention was awarded the scientifie exhibit of Drs. Paul L. Day, William C. Langston and K. W. Cosgrove, of Little Roek, at the twenty-seventh annual meeting of the Southern Medical Association held in Riehmond, Virginia.

Dr. H. Fay H. Jones, Little Rock, attended the meetings of the Post-Graduate Medieal Assembly of South Texas and the Southwestern Braneh of the Ameriean Urologieal Assoeiation at Houston, November 21st to 24th. He presented a paper on "Caleified Cysts of

the Kidney'' before the Urological Association and was elected vice-president of that body.

Physicians from Ashley, Chicot, Desha and Drew counties organized the Southeast Arkansas District Medical Society at a meeting in McGehee on November 28th. The following officers were elected: President, H. T. Smith, McGehee; Vice-president, J. S. Wilson, Monticello, and Secretary, M. C. Crandall, Wilmot.

Dr. Wm. H. McCarroll, Walnut Ridge, son of Dr. and Mrs. H. R. McCarroll, who recently received his degree from the University of Tennessee Medical College, has accepted a position as ship surgeon to sail November 25th. The cruise will visit South American countries and will end in June, 1934. In addition to serving as surgeon, Dr. McCarroll will teach several academic subjects to students carried on the cruise.

The following physicians are members of the respective county societies and their names are published as a supplement to the roster in the November issue:

Faulkner County—Brooke, Hugh C., Conway.
Garland County—Connell, W. H., Hot Springs National Park; Pate, C. N., Hot Springs National Park; Preston, H. H., Hot Springs National Park; Snider, W. L., Hot Springs National Park; Steele, S. B., Hot Springs National Park.
Lee County—Chaffin, C. W., Moro.
Phillips County—Brown, E. T., Marvell.
Union County—Smith, D. V., Huttig.
Independence County—Copp, Noel, Calico Rock.
Ouachita County—Hollingsworth, G. F., Hampton; Sanders, G. P., Stephens.

The American Association for the Study of Goitre, for the fifth time, offers three hundred dollars ($300.00) as a first award, and two honorable mentions for the best essays based upon original research work on any phase of goitre presented at their annual meeting in Cleveland, Ohio, June 7th, 8th, and 9th, 1934. Competing manuscripts must be in English, and submitted to the corresponding secretary, J. R. Yung, M. D., 670 Cherry St., Terre Haute, Ind., U. S. A., not later than April 1, 1934. The first award of the Memphis, Tenn., 1933 meeting was given Anne B. Heyman, A. B., M. S., University of Michigan, Ann Arbor, Mich., "The Bacteriology of Goitre and the Production of Thyroid Hyperplasia in Rabbits on a Special Diet." Honorable mentions were awarded J. Lerman, M. D., and W. T. Salter, M. D., Huntington Memorial Hospital, Boston, Mass.; "The Calorigenic Action of Thyroid and Some of Its Active Constituents," Prof. Dr. Stefan Konsuloff, Sofia, Bulgaria, "Experimental Studies on Etiology of Goitre."

Twenty-five Years Ago

(From the files of The Journal of 1908)

The following were among the successful applicants taking the State Board examination on April 14, 1908:

F. M. Duckworth, Siloam Springs.
N. E. Fraser, Step Rock.
C. W. Garrison, Fort Smith.
W. W. Hatcher, Imboden.
O. R. Kelley, Carthage.
C. S. Means, Charleston.
W. M. Majors, Paragould.
M. P. McNeil, Little Rock.
L. D. Reagan, Little Rock.

Dr. A. S. Buchanan, Prescott, returned from post-graduate study in London.

Dr. W. M. Gibson moved from Emerson to Nashville.

W. F. Smith was elected president of Johnson County Medical Society, succeeding W. R. Hunt.

Among the original articles published in The Journal were:

"Some Observations on Pneumonia"—C. A. Archer, DeQueen.

"Tuberculosis of the Kidney"—J. M. Taylor, Fort Smith.

"Relationship Existing Between Physicians and Nurses"—T. F. Kittrell, Texarkana.

"The Management of Acute Traumatic Infections"—W. A. Snodgrass, Little Rock.

"Acquired Syphilis"—W. E. Hughes, Pocahontas.

"Adhesions Following Abdominal Operations"—Oscar Gray, Little Rock.

Extract from correspondence entitled "To Own or Not to Own An Automobile."

"We fairly flew up Fifteenth Street to Gaines, then south to Wright Avenue. The latter part of the trip was much like a voyage across the English channel, only we were more often separated from the automobile than we would have been from the ship * * *. A machine has its disadvantages. It is uncertain as to its staying powers, except when it quits * * * these odors of gasoline and oil are disagreeable to our patients * * *. But some will say that a horse is also odorous. Granted, but is not his ammoniacal odor a pleasant one compared with that of gasoline and grease?

THE JOURNAL
OF THE
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DR. W. R. BROOKSHER, Editor
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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Editorial

This being the time when the county society officers are elected, it seems fitting to note that there has been a change from the customs of another day when these offices constituted an honor to be rotated among the members. The societies now appear desirous of electing to office those members whom they feel will carry on a vigorous, constructive program. Such a plan embraces the regularity and frequency of meetings, interesting and practical programs, studies of medical economics, leadership in public health activities and the maintenance of interest of the members.

In furtherance of such aims, the county society secretary is a most important man, in fact, the excellence of a county society can be judged in practically all instances by the efficiency of this officer. This State organization is fortunate in having a number of such hard-working, conscientious members holding the office of county secretary.

A plea is made that county societies give the question of proper officers all due consideration as election time approaches. The success of the 1934 activities will depend greatly upon this selection. The county society is the foundation for the State and national organizations and it is obvious that the aims of these larger bodies will reflect the work being performed by the component county societies. The Arkansas Medical Society will function efficiently in direct proportion to the degree of efficiency shown by its respective county societies.

To those members who are elected to office, it might be well to mention that the cloak of office is received at the time of election; the honor, from duty well performed, comes at the conclusion of their terms a year from now.

The Journal extends the Season's Greetings to the members of the Arkansas Medical Society, its advertisers and exchanges, and wishes all health, happiness and prosperity in 1934.

PRESIDENT'S PAGE

Season's Greetings
to the Members of the Medical Profession of Arkansas

It has been a pleasure to visit the District Medical meetings so far and meeting personally the doctors over our State whom I find to be men of the highest type and a credit to their various communities. I sincerely trust that when we meet at Little Rock in 1934, every doctor eligible in Arkansas will be a member of his county medical society, for never before was organized medicine so necessary to each of us as in these economic stressing times. Let's get together and do the right thing by all in our profession.

As the holidays approach, I want to extend the Season's Greetings to the Medical Profession in Arkansas and their families, wishing you a very Merry Christmas and Happy New Year. May the coming year bring to each of you better luck and prosperity, also instil in each of us a higher sense of duty and obligation to our chosen profession and create a feeling of fraternal organization to elevate the medical profession to the highest pinacle where it rightfully belongs. May a feeling of brotherly love prevail for years to come with peace and harmony amongst all of us.

May the choicest blessings be upon each and every one of you and yours.

Sincerely and fraternally yours,

L. J. KOSMINSKY, M. D.

Proceedings of Societies

The Sebastian County Medieal Soeiety met November 14th. The Eye, Ear, Nose and Throat Section presented the following program:

"Retinal Hemorrhages"—Dr. L. M. Henry.

The regular November meeting of the Garland County-Hot Springs Medieal Soeiety was held at the Arlington Hotel, Tuesday, November 14th. There were some thirty members in attendance as well as the following guests, Supt. of Hot Springs National Park, Thomas J. Allen. Mr. Lynn Howlett, President of the Chamber of Commeree and Manager of the Quapaw Bath House, and Mr. M. T. Relyea, manager of the Mauriee Bath House.

The subjeet of the meeting was Health Publieity over radio station KTHS. It was deeided that the society should prepare short medieal topies to be broadeast between regular programs. President Dr. Wm. F. Porter appointed the following committee for this purpose: Drs. Blaek, Purdum and Scully.

The Ninth Counеilor District Medieal Soeiety met in Harrison, Deeember 5th for the following program:

"Organized Medieine"—L. J. Kosminsky, Texarkana.

"Syphilis"—R. Q. Patterson, Little Roek.

"Vomiting of Pregnancy"—Earle H. Hunt, Clarksville.

"Undulant Fever"—W. B. Grayson, Little Roek.

"Radium Therapy in Medieine: Its Funetion and Applieation"—W. R. Brooksher, Fort Smith.

An evening banquet session was held at the Hotel Seville with an address by Hon. Ben Charles Henley.

The Sixth Counеilor Distriet Medieal Soeiety was organized at a meeting held in DeQueen, November 28th, and the following were eleeted offieers: President, R. R. Kirkpatriek, Texarkana; Viee-president, C. E. Kitehens, DeQueen, and Secretary-Treasnrer, C. A. Areher, DeQueen. The second meeting will be held in Texarkana on Mareh 8, 1934. The following program was presented:

Address of Weleome—Senator Winfred Lake, DeQueen.

Response—M. L. Norwood, Lockesburg.

"Present Trend of Medieal Praetiee"—L. J. Kosminsky, Texarkana.

"Roentgenology: Its Aid to the General Praetitioner"—O. G. Hirst, Preseott.

"Eye Injuries"—Albert Mann, Texarkana.

"Lethargie Eneephalitis"—B. H. Hawkins, Mena.

"Uterine Malignaney"—J. K. Smith, Texarkana.

The Washington County Medieal Soeiety met in regular session at the Washington Hotel, Tuesday, November 6th. Dr. H. J. G. Koobs, Rogers, talked on the union of the Washington and Benton County Soeieties, and offered resolutions that they be joined.

There was mueh diseussion, in whieh it was held by some that the identity of the two soeieties would be lost whieh is undesirable. It was suggested by Dr. MeNeil of Rogers that there be joint meetings of the two soeieties, and their identity be kept separate.

Dr. H. D. Wood moves we try alternate meetings with Benton County for the year. Seconded by Dr. Moek. Passed. It was eonceded that earrying out of the joint meetings be left in the hands of the two seeretaries, and further aetion be delayed until the Benton County Soeiety had passed on the matter.

Captain Hooper appeared before the soeiety, on invitation, explaining the regulations that had been sent to him from the Emergeney Relief Organization eoncerning the handling of the eharity medical eases. There was some explanation neeessary for the various means of handling of the work.

With only two exeeptions, it was the opinion of the body that dietatorship over the eharity eases of the eounty was an eneroaehment on the high rights of personal privilege and freedom of the profession. Washington County, it was argued, had never suffered from lack of medieal attention, pay or pauper. Further mention was made of the faet that aeeepting government pay further pauperized citizens of the eounty.

Dr. J. W. Walker then offered the following resolutions:

Whereas, the Washington County Medical Society has always remained true to its traditions of free service to those who are unable to pay for same; giving a large percentage of its time and effort free; and

Whereas, the members of the Washington County Medical Society have never increased their fees during times of prosperity nor lowered them in times of depression; and

Whereas, we, the members of the Washington County Medical Society believe that the fees and terms offered by the Federal Emergency Relief Administration are not satisfactory to members of this society, and tend to a general reduction of fees, and pauperization of persons who have previously been able to pay for medical service.

Be it Resolved, by the Washington County Medical Society that it will continue its previous policies in the care of charity patients—trying to render gratuitous service to the deserving poor, and charging regular fees to those able to pay—retaining its own liberty of action, and its own judgment, as to whom free service may be rendered.

The resolution was adopted.

The program consisted of one number, a case presentation by Dr. Haugen, of Prairie Grove. This was of a persistent Meckle's diverticulum which caused a sinus to the umbilicus. This was an excellent presentation and caused much discussion.

Members present were: Drs. Morrow, A. Hathcoek, Walker, McCormiek, Ellis, Moek, Gregg, Riggall, P. L. Hathcock, Sisco, Wood, Fowler and Richardson. Visitors were: Drs. Koobs, Moore, McNeil of Rogers, Anderson of Devil's Den CCC Camp, Curry of Cane Hill, Haugen of Prairie Grove; and Captain Hooper of the Emergency Relief Committee of Washington County.

Fount Richardson, Sec.

PULASKI COUNTY MEDICAL SOCIETY

(Reported by E. H. White, Sec.)

The Pulaski County Medical Society had two regular meeting nights in the month of November. On November 13th Dr. M. G. Seelig of St. Louis spoke before the society on the subject, "A Retrospect of Surgical History in the Making." There were forty-eight members of the society present with two visitors, Dr. Louis Dunaway of Conway and Dr. W. B. Crogey of Scott.

On November 27th the staff of the City Hospital connected with the University of Arkansas Medical School, presented a program for the Pulaski County Medical Society in the City Hospital auditorium. The papers were presented by the following staff members:

Two cases of diverticulum jejunem demonstrated with lantern slides by Dr. A. F. DeGroat, Associate Professor of Pathology of the U. of A. School of Med.

Two cases of post-operative massive collapse of the lungs presented and discussed by Dr. J. N. Compton.

There were forty-six members of the local society in attendance. This program was unusually interesting because of the scarcity of literature on the subjects discussed.

Resolutions

IN MEMORIAM

Luther Edgar Moore was born in 1861 and died June 4, 1933. He received his literary education in the schools of Searcy. He attended medical lectures at Vanderbilt University, from which school he graduated in 1885. He began the practice of medicine in White County and was an active leader in the profession until stopped by the illness which caused his death. Forty-eight of his seventy-two years were spent in the practice of his profession in this county. He had the happy faculty of gaining and holding the confidence of his patients to a degree that is possessed by few physicians, and many of the families who have depended upon him for almost a half century do not now know which way to turn. He was a man of integrity and ability and served his people long and well;

Whereas, the White County Medical Society of which he was so long a valued member, deeply mourns his going and sincerely appreciates him as a man and a physician; therefore,

Be It Resolved, that we extend to the bereaved family our heart-felt sympathy and condolence, and that this memoriam be placed in the minutes of the society and that a copy be furnished the family of the deceased.

F. P. Hardy,
Sam J. Allbright,
Committee.

Auxiliary Page

MRS. D. W. GOLDSTEIN, Publicity Secretary
616 North Greenwood Avenue
Fort Smith, Arkansas

The Woman's Auxiliary to the Pulaski County Medical Society met November 15th at the home of Mrs. W. R. Richardson with Mrs. S. R. Crawford, Mrs. D. M. Switzer, Mrs. C. M. Brooks and Mrs. A. W. Strauss, assistant hostesses. Mrs. B. A. Bennett, president, presided over the business meeting. Mrs. C. E. Oates, chairman of the Student Loan Fund Committee, presented plans for a benefit card party to be given at the home of Mrs. K. W. Cosgrove Tuesday, November 21. Mrs. Raymond Wallace was welcomed as a new member. At the conclusion of the business session Mrs. W. R. Richardson, program chairman for the afternoon presented Miss Florence Kruger who sang "The Green Cathedral," "My Lover is a Fisherman" and "A Short Story," with Mrs. Patsy Merril at the piano. Miss Gussie Haynie spoke on "The Legal Status of Women in Arkansas." Later tea was served in the dining room by Mrs. B. A. Rhinehart and Mrs. B. A. Bennett.

The Woman's Auxiliary to the Pulaski County Medical Society gave a benefit card party for the Student Loan Fund at the home of Mrs. K. W. Cosgrove, Wednesday afternoon, November 21st. Door prizes were won by Mrs. R. E. Overman and Mrs. J. Frank Beasley. Mrs. Chas. E. Oates, chairman of the Student Loan Fund Committee, was in charge of arrangements assisted by Mrs. C. C. Reed, Mrs. Joe Shuffield, Mrs. K. W. Cosgrove, Mrs. M. B. Holmes, Mrs. A. C. Shipp and Mrs. W. E. Gray, Sr.

One of the most novel sessions in the history of the Bowie and Miller Counties Medical Auxiliaries was that held October 27th, when in the early morning, a group of members motored to "Robin's Nest," Naples, Texas, summer home of Dr. and Mrs. J. T. Robison.

The spacious verandas; the commodious living room, its huge stone fireplace with logs cheerfully ablaze, effective placing of colorful native blooms and vines, all contributed vastly to the enjoyment of an "autumn picnic."

Mrs. C. E. Kitchens, president, presided over the regular business session. At all times there are available to the auxiliary, pamphlets on health subjects, interesting and instructive, not only to members of the auxiliary but also to other organizations, and from which material might be obtained for programs pertaining to the subject of health. It was therefore voted to maintain a library of such pamphlets, with the chairman of the public health and relations committee in charge, the same to be loaned to other societies if, and when, they should so desire.

The meeting adjourned, after giving Mrs. Robison a rising vote of thanks for her hospitality.

Sharing the charming hospitality with Mrs. Robison were the following members: Mrs. Roy Baskett, Mrs. E. L. Beck, Mrs. S. A. Collom, Jr., Mrs. N. B. Daniel, Mrs. E. A. Hawley, Mrs. William Hibbitts, Mrs. Preston Hunt, Mrs. W. A. Hutchinson, Mrs. R. R. Kirkpatrick, Mrs. C. E. Kitchens, Mrs. T. F. Kittrell, Mrs. H. E. Murry, Mrs. George Parsons, Mrs. P. H. Phillips (Ashdown), and sister, Mrs. Burlingame, Mrs. A. W. Roberts, Mrs. J. T. Robison, Mrs. H. H. Smiley, Mrs. Charles Adna Smith, Jr., Doctor Frances Spinka and Mrs. E. M. Watts.

Around a luncheon table, bright with bowls of golden marigold and cosmos, interspersed with brilliant autumn foliage, the Woman's Auxiliary to the Garland County Medical Society gathered at the Kingsway Hotel for the first meeting of the current year. Mrs. Charles E. Garratt, newly elected president, presided.

Mrs. B. A. Rhinehart, State president of the auxiliary, of Little Rock, addressed the meeting in a most enthusiastic manner, stressing the individual work of the various officers and committee heads and reminding them of the two-fold purpose of the club-service and education.

Mrs. C. E. Oates, also of Little Rock, and a vice-president in the national auxiliary, gave an interesting account of the work accomplished in Arkansas by the Student Loan Fund Committee.

Mrs. Charles Travis Drennen, a past president of both county and State auxiliaries, extended greetings after a long absence and her reminiscences of the early work were charming. Mrs. C. H. Nims, past president, also greeted the club.

Officers of the local auxiliary and the various committees who will serve this year were presented by Mrs. Garratt and reports were given.

The following members and guests were present: Mrs. Charles E. Garratt, Mrs. G. A. Hebert, Mrs. Walter G. Klugh, Mrs. Charles Nims, Mrs. D. C. Lee, Mrs. Charles Travis Drennen, Mrs. B. A. Rhinehart, Mrs. C. E. Oates, Mrs. James D. Fife, Mrs. William Denton, Mrs. William Meister, Mrs. Albert H. Tribble, Mrs. Orvis E. Biggs, Mrs. W. L. Snider, Mrs. M. F. Lautman. Mrs. C. D. Coffey, Mrs. James B. Strachan, Mrs. H. King Wade, Mrs. F. M. Williams, Mrs. S. D. Weil.

Mrs. Howell Brewer, Mrs. Floyd Clardy, Mrs. B. F. Casada, Mrs. W. C. Chamberlain, Mrs. W. B. Pollock, Mrs. F. S. Tarleton, Mrs. O. H. King, Mrs. George B. Fletcher, Mrs. Charles Lutterloh, Mrs. Bollmeir, Mrs. John Woodland, Mrs. Russell, Mrs. Wilson, Mrs. Robinson, Mrs. Prazak, Mrs. C. Elmo Dovell and Miss Elizabeth McDonald.

One hundred guests attended the beautiful Halloween party in the recreation room of the Medical Arts Building, given by the Auxiliary to the Garland County Medical Society. Quantities of autumn leaves, lighted pumpkins and other symbols of Halloween were used to decorate the hall where dancing, novelty features, side shows, and fortune telling were provided for the entertainment of the guests. Attractive and worth while prizes were awarded winners at several of the booths. Special prizes were also awarded, among these the bowl donated by Mrs. Frank Lambert, was won by Mrs. J. M. Proctor; a cake of Mrs. William Meister was awarded Mrs. William Turner Wootton; and a cake from Mrs. J. D. Fife won by Charles Bunch.

Doughnuts, confections and coffee were served throughout the evening.

Obituary

DR. D. J. HALBROOK, aged 63, of Formosa, died at his home November 19, 1933. He is survived by his wife, his son, Jerry, of Heber Springs and a daughter, Mrs. Lois Willingham, of Formosa.

DR. G. E. WEBB, aged 40, died at Russellville, November 27, 1933. Dr. Webb graduated from the East Texas Normal at Commerce, Texas, with the B. S. and B. L. degrees, and received this medical education at Tulane University and University of Tennessee Medical College in Memphis. He practiced his profession in Atkins and Dardanelle before volunteering for service in the World War, in which he served overseas as first lieutenant in the Medical Corps. Returning from overseas he was associated with the late Dr. Jerome Wright in Russellville. He was a member of the Elks Lodge, Rotary Club, Chamber of Commerce and the Baptist Church.

Dr. Webb is survived by his wife, a son, Mimy; a daughter, Mary Jane; five brothers, Bert and Edgar Webb of Hector; Dr. Floyd Webb of New Orleans, La.; Thuman Webb of Chillicothe, O., and Dr. Bunyan Webb of Memphis, Tenn., and a sister, Mrs. J. M. Stanford of Russellville.

COPELAND BILL SAFEGUARDS RIGHT OF HOME MEDICATION

"Contrary to some opinion, mothers will not be denied their inalienable right to treat themselves and their families for minor ailments, diseases, or injuries, if the Copeland bill, designed to take the place of the present outmoded national food and drug law, is passed by Congress," says Dr. F. J. Cullen, Chief, Drug Control, Federal Food and Drug Administration.

"Every mother knows that certain types of cramps, colic, or worms in children can successfully be treated in the home—given the proper medicines purchased at the drug store. But the labels of these medicines should tell the whole truth as to their remedial efficacy," says Dr. Cullen. "Such labeling would be assured under the Copeland bill—which retains all of the desirable features of the present pure food and drug law and bolsters up weaknesses of that law which have made impossible a fully effective enforcement. The new bill provides that if a drug preparation used for self-medication or otherwise contains an injurious ingredient, that fact be plainly declared upon the label. Among other minor ailments or injuries which often can be successfully handled by self-medication or home treatment are coughs, simple colds, some burns, cuts, scratches, etc. Every experienced mother knows how to manage these."

But Dr. Cullen points out that attempts at self-medication for many serious diseases by those who have no medical training are extremely dangerous. Diabetes is a disease which cannot be cured by any manner of self-medication. As a matter of fact, says Dr. Cullen, medical science recognizes no drug nor medicinal cure for this malady. And yet the present food and drug law is not sweeping enough in its provisions nor tight enough in its wording to prevent the sale of essentially vicious nostrums which are sold for the purposes of self-dosing. The government recently lost a prosecution against a Pittsburgh, Pa., manufacturer who was putting up a so-called "cure" for diabetes which was an extract of the common weed, horse-tail. The manufacturer recommended the nostrum, which sold at $12 a pint, for the treatment of diabetes. In the trial of the case, medical experts of nation-wide reputation testified that the fake medicine is worthless in the treatment of diabetes. The government offered in evidence a sheaf of death certificates of patients who had used the nostrum but had died of diabetes. Some of these unfortunates shortly before their death had written to the manufacturer of the horse-tail concoction testimonial letters extolling the virtues of the article. Although the government proved that the stuff is worthless, it was unable to show that the manufacturer knew it to be worthless, and the jury, under the instructions of the court, returned a verdict in favor of the defendant. Sale of this worthless concoction continues.

Various crystallized salts are on the market today, according to Dr. Cullen. These are recommended for many diseases, including rheumatism, arthritis, stomach trouble, colitis, Bright's disease, etc. Most of these crystallized salts are laxatives and are of value in cases where a laxative is indicated. For example, constipation is accompanied by a symptom complex consisting of headache, nausea, sour stomach, and, commonly, muscular aches and pains. If an individual suffering with arthritis allows himself to become constipated, this symptom complex will cauce an exaggeration of the arthritic pains. If he uses one of these crystallized salts, its laxative effect will remove the symptom complex and will have a tendency, apparently, to lessen the pains of the arthritic condition, but will in no sense be of value in the treatment of the underlying cause of arthritis. The user of such a laxative preparation should not be deceived by this apparent relief and should not believe that he is combating the underlying cause of arthritis.

"One of the greatest weaknesses of the present food and drug law appears in dealing with medicines which have some value but which will not effect cures which their labeling may imply to the average layman who has no knowledge of diseases or their treatment," Dr. Cullen declares. "To stop this menace to public health which breaks through the loophole in the present law, Senator Copeland's new food and drug bill, now before Congress, contains this provision: 'A drug shall be deemed to be misbranded if its labeling bears the name of any disease for which the drug is not a specific cure, but is a palliative, and fails to bear in juxtaposition with the name of the disease and in letters of the same size and promi-

nence, the statement that the drug is not a cure for the disease.' The new food and drug bill also prohibits the distribution of drugs and medicines for those diseases in which self-medication is especially dangerous or patently contrary to the interests of public health."

U. S. VIGILANT IN ENFORCING FOOD AND DRUG ACT, SAYS CHIEF

Although advocating a strenghthened pure food and drug law of a type considered necessary under present conditions, the Food and Drug Administration has not been lax in the enforcement of the present statute, says W. G. Campbell, Chief of the Administration, in his annual report made public today by Secretary Wallace.

Mr. Campbell's report shows that in the last fiscal year the Administration collected 47,646 samples of foods and drugs. These samples included an unusually large number of fresh fruits and vegetables examined for possible residues of poisonous spray, including lead and arsenic. The record includes seizure of 241 shipments of spray-infested fruits and vegetables. Apples continued to receive major attention as is to be expected when the importance of interstate traffic in this fruit is considered. The report states that considerably less than 7 per cent of all interstate shipments of fruit exceeds the world tolerance and that most of these shipments are apprehended and seized.

One of the outstanding litigations contested during the year, according to Mr. Campbell, was directed against the manufacturer of Banbar, an alleged diabetes remedy put out by a Pittsburgh, Pa., concern. Banbar, labeled with remedial claims for diabetes, is essentially a liquid extract of horsetail weed retailing at $12 a pint. The government alleged that the remedial claims for diabetes printed on the label were false and fraudulent. In order to establish the falsity of the claims, medical men of high standing testified that the nostrum was worthless for diabetes. The government also introduced a number of death certificates of diabetes who had relied upon Banbar for treatment, but who had died of the disease. Despite such evidence of the worthlessness of the nostrum, the government was unable to establish fraudulent intent on the part of the manufacturer and the jury rendered a verdict in his favor.

Another important trial concluded during the period brought to terms that ring of bootleg "ginger jake" peddlers whose indictments were noted in the annual report for 1932. These men shipped consignments of a poisonous imitation extract of Jamaica ginger, labeling the stuff as "liquid medicine." Hundreds of cases of paralysis followed the consumption of the spurious extract. Evidence showed that most of the victims had drunk the poisonous "jake" as a beverage, although a few unfortunates unwittingly took it for medicinal purposes. Since the traffic in this poison had been through underground channels, characteristic of the bootleg liquor traffic, it took more than two years of continuous and highly intensive investigation by the Food and Drug Administration to unearth the facts.

The government showed that a conspiracy had existed between at least three of the culprits to ship the adulterated stuff. The penalties for violating the Conspiracy Law are very much heavier than those prescribed in the food and drug act. Prison sentences could not have been imposed on these offenders under the food and drug law. Prosecuted under the Conspiracy Law, the three men were convicted and were sentenced to jail terms, ranging from 17 to 20 months, and fines of $2,500 were levied upon two.

Correspondence

The following letter has been received from Dr. Herman N. Bundensen, President, Board of Health of Chicago:

"To keep you informed of the progress of the outbreak of amoebic dysentery having its probable origin in Chicago, I am writing to advise you that to date we have had 302 cases, involving 96 cities, 265 carriers and 22 deaths. It has been traced to almost every State, as well as to Canada and several foreign countries.

"In the November 18, 1933, issue of the Journal of the American Medical Association, there is a preliminary report of the Chicago outbreak of amoebic dysentery, together with an editorial, as well as information on the diagnosis and treatment of this disorder.

"In the editorial, page 1643, is the statement, 'Repeatedly, American investigators and clinicians have emphasized the increasing menace of amebiasis in this country.' The number of cases of this disease that we have traced from Chicago, indicates that amoebic dysentery threatens to become a major public health problem in your State.

"We are daily learning of cases of amoebic dysentery in which a diagnosis of appendicitis or ulcerative colitis has been made with subsequent operation and usually fatal outcome. The correct diagnosis is made only by autopsy on these cases. Many cases of amoebic dysentery are being treated as intestinal influenza and mucous colitis, appendicitis, or ulcerative colitis.

"We would appreciate it greatly if every physician would advise us of any cases of amoebic dysentery with which they come in contact where there is a probable Chicago origin, giving us the name and address of the patient. It is our purpose to contact these patients by letter, so that we may learn the names of the hotels and restaurants used by them in Chicago. In this way, we hope to get important data which will enable us to find the carriers or cases responsible for their infestation.

"Any assistance which you may give us in this matter will be deeply appreciated."

NEW PRODUCT FOR DIPHTHERIA IMMUNIZATION

The Squibb Laboratories announce the availability of Refined Diphtheria Toxoid Alum Precipitated with the featured advantage that one injection is sufficient for the immunization of the majority of children against diphtheria. The efficacy of the preparation in immunizing against diphtheria is believed to be due to the fact that the alum precipitated toxin, since it is relatively insoluble, is more slowly absorbed and remains in the body sufficiently long to produce adequately protective amounts of antitoxin.

These features make Alum Precipitated Toxoid of particular value in public health work, for two or three times as many persons may be immunized with no more effort nor time on the part of the public health worker. It also makes it easier for the family physician to follow the advocated procedure of immunizing every infant, at whose birth he has officiated, at six months of age.

Book Reviews

Your Teeth and Their Care. By Carl W. Adams, D. D. S. Price, $1.25. 137 pages. Published by C. V. Mosby Company, Saint Louis.

Many dentists will be grateful to the author for bringing to the layman a beautiful story of the functions of the teeth and oral cavity in an understandable way. This is a remarkable book but would have been more so, had Chapter One, rather dry and uninteresting to the average layman, been omitted. Every dentist should have a copy of this book on his reception room table ready for loan to patients exhibiting interest.

Rice, George A., Conrad, Clinton C., and Fleming, Paul. The Administration of Public High schools Through Their Personnel. New York: Macmillan Co., 1933. Pp. 724.

This book is the first sound and comprehensive treatment of the problems of administration in terms of personnel. It shows that the most important duties of high school administrators are the selection, assignment, health, efficiency and promotion of the principal, vice-principal, deans, librarian, heads of departments, the teachers, health workers, and other employees. There is a discussion of the purposes of administration, present types of organization, and suggested improvements. The duties and responsibilities of each position are thoroughly presented with standards for selection, concrete means for improving health conditions and plans for increasing efficiency High school principals will find this work a valuable manual. Laymen who read it will be able to make a better appraisal of the effectiveness of the high school and the efficiency of those responsible for its administration.

The Pelvis in Obstetrics. A Practical Manual of Pelvimetry and Cephalometry, including Chapters on Roentgenological Measurement. Julius Jarcho, M. D., F. A. C. S., Consulting Roentgenologist, Hastings Hillside Hospital; Attending Obstetrician and Gynecologist, Sydenham Hospital. 365 pages, 140 illustrations, 51 tables. Price, $6.00. Paul B. Hoeber, Inc., New York, 1933.

This is an extensive compilation of all data relating to pelvic mensuration, and in addition to its practical application by obstetricians and roentgenologists, constitutes a valuable reference work of this phase of obstetrics. The bibliography is complete for the literature in this field. Practically all methods of mensuration, whether manual, caliper or roentgenological, are discussed. The chapters on roentgen-ray cephalometry, as well as on roentgen-ray pelvimetry, are well-written and the value of the method carefully presented. The normal and abnormal pelvis is described in adequate detail. The good quality paper, the large type and the excellent illustrations combine to produce an excellent typographical result.

Food, Nutrition and Health. By E. V. McCollum, PhD., ScD. and J. Ernestine Becker, M. A. Baltimore: E. V. McCollum and J. Ernestine Becker, 1933. Third edition rewritten, pp. 146. Price, $1.50 postpaid.

Everyone familiar with the work of Dr. McCollom and his associates will welcome this small book, with its fund of information in nontechnical terms. The authors state that they have "endeavored to set forth in simple language the nature of an adequate diet as the biochemist visualizes it."

The first half of the book deals with the food principles, giving the requirement of each for normal nutrition and health. Latest research in regard to vitamines and minerals is reported, with particular emphasis upon the effects of the deprivation of these valuable constituents. Experimental data has been secured from studies made by the authors on a rat colony of 2000-3000 animals, kept over a period of 21 years. Various types of diets have been studied in relation to optimum health and physical perfection, and the results checked through succeeding generations. Comparison is made of the "meat and potato diet" and that which contains an abundance of milk, leafy vegetables and fruit. Consideration is also given to the changes made in the American diet in the past century.

The authors' viewpoint regarding the use of coffee strikes a sane middle ground. Food phobias, with the tendency of such to induce an inadequate diet, are discussed. The information given should discourage food faddists, and point the way to a diet that will meet all nutritional requirements.

Diet and preventive dentistry, reducing and fattening diets, acidosis, hygiene of the digestive tract, etc., have all been given space. A number of tables giving food values, also season menus at moderate cost should be helpful. The slogan "Eat what you want after you have eaten what you should" is one that might well be remembered and acted upon.

Written in a concise and readable manner, this book should prove a valuable source of information to physician, nurse and patient as well.

What Shall I Eat? By Edith M. Barber, B. S., M. S. New York: The MacMillan Company, 1933; pp. 106. Price, $1.75.

The first chapter of this clever little book gives us the comforting news that 'there is a straight and narrow, but pleasant and simple, path through the apparent maze of nutrition information." The author proceeds to trace this path by giving us entertaining as well as instructive information as to how to arrive at a satisfactory plan of getting the most out of that interesting commodity, food.

Minerals, vitamins, proteins and calories are discussed in terms of a good disposition, a good complexion, "that beat the world" feeling, and "that perfect figure." The "rule of seven in nutrition" gives us a practical standard by which nutritional needs may be satisfied in a simple manner. Attention is given to the business man's (or woman's) lunch, and to the selection of food while travelling. Menus for various incomes have been planned, and charts and tables included.

Anyone with a sense of humor should appreciate the manner in which the author treats food fads and food prejudices, and their inhibitory influence upon adequate nutrition.

Illustrated by Helen Hokinson of "New Yorker" fame, this book should teach the seeker of dietary information "How To Be Happy Though Healthy," and to experience genuine enjoyment in the process.

—Lillian Hack.

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Original Article

THE IRRITABLE COLON, CLINICALLY*

S. J. WOLFERMANN, M. D., Fort Smith

A elinieal diseussion of some phases of the eolon should not be out of order, partieularly those so frequently diseussed under the term "eolitis." The elassifieations and terms used are unsatisfaetory and mueh confused, and without any standardization. The terms, "spastie eolon," or "spastie eolitis," "mueous eolitis," "unstable eolon," "irritable eolon," and others, are widely and loosely used, and the pieture they express is vastly different in the minds of the various physieians. There is no standardization for these terms among physieians, and even less between the roentgenologist and the internist. Beeause the true organie lesions of the eolon are quite well elassified and little eonfused by either the internist or the *X*-ray department, they will be omitted from this diseussion. For this same reason we exelude uleerative eolitis. The symptom eomplex, variously deseribed under the other terms mentioned above, eoneerns us most. First, beeause of its frequency, and, seeond, beeause, apparently, it is little understood and improperly treated. The term "eolitis" is ineorreet beeause it eertainly is not an inflammation. Spastieity does not explain the story, and is likewise wrong. Mueous colitis is not an entity, the mueous being only an oeeasionally assoeiated symptom. Either "irritable" or "unstable" eolon will suffiee, though there are some who insist that laek of irritability may present similar symptoms, and, therefore, "unstable" is preferred. We have worked out our series on the irritability elassifieation, though I am perfeetly willing to subseribe to the term "unstable."

We are further interested in this irritable eolon beeause it is the most frequent gastro-intestinal ease eoming into the physician's offiee. It has best been deseribed by Sara Jordan (1), "The fundamental faetor in the eondition is an unbalanee between the nervous and the museular apparatus of the eolon, whieh results in a disturbanee in its meehanieal, and, to a lesser degree, its seeretory funetions; an unbalanee that eomes to the eonseiousness of the individual by various symptoms, ehief among whieh are abdominal diseomfort or pain, gaseous distress and an abnormal elimination of feeal material." As a matter of faet the patient may eomplain of a vast and varied group of "indigestion symptoms." These inelude various degrees of pain anywhere in the abdomen, fullness, distension, gaseous eruetations, nausea, regurgitation and inereased or deereased appetite. The number of these patients who eomplain of high epigastrie pain is astonishing. It is also a very notieeable faet that when in the eourse of administering the barium enema an area of spasm is noted. Pressure over, or manipulation of this eontraeted area eauses the patient to eomplain of epigastrie pain, demonstrating its reflex origin. A eertain number eomplain of headaehe and dizziness with the above symptoms, and others who seem to have a definite neurogenie basis may have any eombination of the above, plus various symptoms of nervousness referable to the eyes, ears heart and mental system. Constipation is the rule and is often the eause of the patient consulting the doetor, though there are eases with alternate diarrhea and eonstipation, and some with only diarrhea.

The history and subjeetive symptoms may simulate those of uleer, gall bladder, eaneer or any organie lesion, and it is, therefore, obvious that the diagnosis of a funetional eondition sueh as this ean only be made after eareful gastro-intestinal study with physieal, laboratory and *X*-ray findings, and the exelusion of organie lesions. In a review of 500 eon-

*Read before the Fifty-eighth Annual Session of the Arkansas Medical Society, held at Hot Springs National Park, May 2, 3, 4, 1933.

secutive gastro-intestinal *X*-ray studies this diagnosis was made in 68 per cent, proving again, I believe, that it is well worthy of attention.

We are too concerned with the etiology to enable us to satisfactorily treat the condition. Here again is much confusion. Some maintain the entire condition is a neurosis. There is no doubt that neurogenic symptoms are present in a large number of these cases, 58 per cent in this series, but whether resultant or causative, I cannot say. Of far greater importance in this series seems to be the daily or frequent use of purgatives, a history of this being present in 88 per cent. There is no question in my own mind but that this condition can and is produced, though not necessarily entirely, by the constant use of purgatives, enemata, too much vegetable roughage, agar, psylla seed, and the like. And in this connection, may I mention the various irritating enemata used. The gastro-intestinal mucosa is similar throughout, from mouth to rectum, granting different formations, glands and nerves, but if every doctor's throat had first to be swabbed with the solution of an S. S. or other enema, fewer would be used in the colon.

The outstanding complaint is constipation, though the symptom groups are often bizarre. Some are unquestionably the result of a general nervous disturbance; some are undoubtedly caused or aggravated by extra colon pathology and are seen accompanying gall bladder disease, ulcers and other organic lesions. Many are associated with indiscretions in diet, poor habits and methods of eating, but a far greater number show constant use and abuse of purgatives.

Heavy foods like barium sulphate used in the *X*-ray room are supposed to be out of the stomach by six hours and the head of the column to reach cecum in this same length of time. The time movement from here on varies as given by different writers, but usually the head of the column is in the sigmoid in from 24 to 36 hours, and in 72 hours the tail of the column should have cleared. Certainly one and one-half to two feet of fecal material, or about one-half the length of the colon, would be considered a good normal movement by the average physician. It is normally pushed out by peristalsis as the head of a column of feces more than 25 feet long. But if the patient is given or takes a purgative and cleans out the entire column, normally are the next day no feces reaches the rectum and the patient should have no bowel movement. Rarely is it there and ready to move the next day, but the following day it is usually there and empties itself. My contention is this, that after purgation the patient's bowels should not be expected to move for 48 hours or sometimes 72 hours, and if let alone they will then move. But this is what happens: The patient takes his purgative and his bowels move well. The next day they do not move and he becomes worried. He fears that they will not move the next day and that he will have a headache or a return of the symptoms for which he took the original dose, so in anticipation of tomorrow's constipation, he repeats his purgative tonight, and so the vicious circle goes on. This is Knappenger-ger's (2) "anticipation constipation," and at least in our studies, the greatest of all causes of the irritable or unstable colon.

I have never been able to find any workable roentgenological classification for this study written by any of the workers, so some years ago we established one of our own. The articles presented by the Cole Collaborators (3) have contributed much to the anatomy, but particularly to the physiology of the stomach and colon, and respect must be acknowledged to the various writings along this line of Alvarez and many others. Our working classification admittedly, is neither scientifically nor roentgenologically impregnable. However, it is practical and has given us clinically better results than any other that has been available.

We first had to establish a so-called normal colon. This, experience teaches, is not the colon of the anatomies, nor it is the "ideal colon" so widely advertised by one of our pharmaceutical firms, but a composite idea of natural healthy individuals with normal daily evacuations. Colons having peristalic waves of lessened intensity, of lessened number, with an increase in lumen, we have called atonic, as formerly, though one might argue that this belongs in a class of lessened irritability, less than normal. When peristalic waves are increased in number and deepened, we have called it irritability, grade one. With a greater increase in waves, both in number and intensity and a narrowing of the lumen

of the bowel, we have called it irritability, grade two. With the findings of grade two, plus a loss of waves in the narrowed portion, we have called it grade three, because we believe the loss in waves is due to over-contraction or spasm. If grade three involves the splenic flexure, or extends over into the transverse colon or cecum, we have called it grade four. This last picture greatly resembles ulcerative colitis and may be the forerunner of it. Because we believe that mucous colitis is not an entity, when the characteristic *X*-ray signs of mucous are present and ulcerative colitis is ruled out, we then report it as irritability, grade 1, 2, 3, or 4, with mucous.

With this classification it is soon very evident that the majority of cases of constipation which present themselves to the physician's office for treatment are not, as we have been previously taught, atonic. In fact only 11 per cent of this series fall in that class. It should be very evident then that in the remaining 89 per cent whose colons are already irritated, the use of roughage, large bulk diet and purgatives is just like adding kerosene to fire. Despite the fact that these by further irritation will produce bowel movement, they are always a little farther from the ultimate cure.

Treatment of necessity varies for the different grades, and also for the type of individual and the different types of nervous system and symptoms. The public is "bowel conscious," and a great deal of education is necessary. The average individual is better off with no bowel movement for 48 hours than he is after moving his bowels with a purgative. First the irritable colon case must be studied as an individual personality. Mal-adjustment in his daily life, working conditions, nervous strain and worry must be improved if possible. High tension activities must be reduced. As reluctant as I may be to admit it, excessive use of tobacco is contra-indicated. Water intake between meals is increased. The use of any and all laxatives is forbidden. Co-incident gall bladder disease, ulcer, kidney disease and subacute appendicitis must be cared for in the usual manner. Hemorrhoids and fissures should be removed; proctitis treated. A word of caution in surgery may not be amiss. The number of cases of irritable colon which already have one to three unnecessary scars on their abdomen is enormous. Many have been

WORKING CLASSIFICATION.

TYPE	PERISTALTIC WAVES NUMBER	PERISTALTIC WAVES INTENSITY	SIZE OF LUMEN
ATONIC	decrease	decrease	larger than normal
IRRITABILITY GRADE 1 *	slight decrease	slight decrease	normal
GRADE 2	more increase	more increase	slight decrease
GRADE 3	marked increase	marked increase	marked decrease plus loss of waves in narrowed portion
GRADE 4	Same as grade 3, but involving more than the descending colon, usually transverse and part of ascending.		

Signs of mucus disregarded for diagnosis, but reported Grade 1, 2, 3 · 4, plus mucus.

* Grade 1 very difficult to distinguish from normal, but very evident from retrospective study.

Constant factors in enema: Barium, 6 rounded dessert spoonfuls to one pint, temperature 100' to 105' F., enema vessel not over 2 feet higher than patient's hips.

TABLE No. 1

operated upon because of a tender cecum under the diagnosis of chronic appendix, only to get the temporary relief afforded not by the operation, but by the post-operative rest in bed and post-operative bland diet. Many a tube and ovary has been uselessly sacrificed in this same cause and with the same result.

The basic drug in therapy is atropine, or possibly with less efficiency, belladonna, which is given three times daily and over a long period of time. Some fifteen years ago Soper advised giving the small dose of one grain of veranol with the atropine. Whether it acts on the nerve ends in the bowel or owes its action to the mild sedative effect on the nervous system, I do not know, but I have found empirically after long experience that it helps a great deal. The atonic rectums get cottonseed oil or olive oil instillations at bedtime to be retained all night. Some cases get plain mineral oil, as we have seen no irritation from it as claimed by some clinicians. Daily rest in bed of from one to three hours whenever possible is required, during which time heat is constantly on the abdomen. Clinically we have found the irritable colon very susceptible to cold and though it may sound "old maidish" in these days of open windshields and autos, a flannel band over the abdomen in cool weather has given much relief. The basis idea in the diet is to get it as low in residue as possible and still retain maintenance calories. Vitamins which are low in these diets are made up by brewer's yeast, cod liver or haliver oil, or any standard prepared vitamin prescription. Because these people do not know the time it takes food to get to the colon, they have blamed the last food eaten for their gastro-intestinal symptoms. They, therefore, come to us with the most ridiculous diet restrictions, usually of their own making, and some so low in calories that they show marked malnutrition. Beef, chicken, lamb and eggs are basic low residue foods, and these cases do well with them. We have not been convinced that the carbohydrates are at fault, so feed all cooked cereals that do not contain bran; adding rice, grits, hominy, and at times corn meal, noodles, spaghetti and macaroni without highly seasoned sauces. White bread, toast, crackers and zwieback are used for breads. Desserts are custards, cornstarch, junket, tapioca, bread pudding and plain cake. Ice cream and ices are tried and if well tolerated are used. Butter, plain cheese and occasionally cottage cheese are allowed, if well tolerated. Clear broths and strained soups are given. In the beginning no fruits or vegetables are given. Orange juice and tomato juice are tried in the first week to make up vitamin C, and if they cause a return of the abdominal discomfort, are discontinued. The strict interpretation of the diet is used for grade four; slightly less for grade three, though both demand almost the same diet, but different general restrictions. Grade two is allowed the same, plus sieved vegetables, such as peas, carrots, green beans, beets, tomato pulp, asparagus tips and baked potatoes. Later, after all abdominal distress is gone, sieved apricots, peaches, pears and apples, all cooked and served warm, are added. Grade one is allowed these same vegetables mashed with a fork, but we often believe time is saved by using the same diet as for grade two. Milk, though a disputed food, is tried for the individual case. Though a high residue food, it seems to be non-irritating, as the residue is in a soap form and when well tolerated, as it often is, gives a valuable food addition.

If patients have found that certain foods disagree, these are definitely omitted. Unquestionably allergy often plays a part in these colons, and we feel that we have materially added to the comfort of the patient and aided our results by numerous food tests. But we believe that to say that allergy explains or is responsible for the entire picture, is preposterous. Allergic response certainly produces smooth muscle spasm in the lungs, and no doubt does so in the bowel, but when present is only a small part of the story.

Following the work of Trippe (5), we have tried some of these cases on the internal administration of metaphen. Some of the results have been quite startling, particularly four cases that had been resistant to all other forms of treatment. We have also had several failures and to date have not had sufficient experience with the drug to express an opinion. We have been so impressed with the needlessness and harm of giving purgatives that we have carried it into our post-operative procedure. It has been well established for some time that preoperative purgation is harmful. Of the patients, who are not given a purgative on their third or fourth post-operative morning, a great many will have spontaneous bowel movements, and in those

who do not, a small normal saline enema is all that is necessary to start and re-establish normal bowel movements. This materially improves post-operative comfort and convalescence.

It is explained to the patient that the strict diet does not have much "left over"; that it is not necessary for his bowels to move every day, and that the amount of movement will be smaller than formerly. If he just must make his bowels move, we occasionally advise a one-pint normal saline enema. It is further explained that it has taken a long time of abuse to produce a severe case, and it will take a year to a year and a half to get the bowels back in good shape, and as soon as he improves, his diet will be increased. Of course less severe cases will improve more rapidly.

As stated before, there is much about these cases that is confusing and more that we do not know. Our classification is undoubtedly open to much criticism, as it has not been made by research, but by the clinical experience of trial and error. However, it is workable and in our hands has given us more gratifying results and more satisfied patients than any method we have previously used.

Summary

1. Terminology and etiology of functional colons have been discussed.

2. A classification of irritability, though not impregnable, is offered to more closely unite opinions of different workers, both internists and roentgenologists.

3. Effects of constant purgation are shown and the suggestion that it be omitted post-operatively is given.

4. Clinically proven treatment is offered.

NOTE: The joint discussion of the papers of Drs. Wolfermann and Levy will be found at the conclusion of Dr. Levy's paper in this issue.

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Original Article

"THE IRRITABLE COLON—A RESULT OF VITAMIN DEFICIENCY"*

Jerome S. Levy, Little Rock

A critical study of the literature reveals an astonishing lack of clarity concerning a functional disturbance of the colon which is variously described as spastic colitis, spastic constipation, mucous colitis, vagotonia, mucous colopathy, mucorrhae, et cetera. The term "colitis" itself has been used indiscriminately as a label for a variable group of symptoms and it has been subjected to many interpretations. For example: Hurst (1) says that no diagnosis is made more frequently and with less justification. In most cases where a diagnosis of colitis is made this name supposedly indicates a definite organic disease but is really given to explain the presence of a group of symptoms which are purely functional in origin. I agree with Bargen (2) that the term "irritable colon" is much more appropriate for these cases as it indicates the functional disturbance which is present. It may be further qualified by stating, irritable colon, spastic state, or irritable colon, mucous state, as the case may be. In order to place our conception of this common condition (or rather syndrome) on a sound basis, a clear-cut description is neeessary, as well as a clear-cut understanding of the underlying causes.

The purpose of this paper is to describe the clinical picture of the irritable colon and to describe an outline of its treatment on the basis of what the author feels is its etiology, and which has proved successful in his hands.

Symptoms

The symptoms simulate various intra-abdominal conditions. The patient is usually easily fatigued, complains of some disturbance of intestinal evacuation which ranges from a frank constipation to a marked diarrhea, occasionally with alternating spells of each, and states there is a sense of incomplete or ineffectual evacuation. Often, there is a complaint of excessive amounts of mucous in the stool, the mucous occurring either on the stool, mixed with it, or as a separate passage. Especially so is this latter if the move-

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ments are diarrheal in type. The costive stool may be marble-like, ribbon-like, or pencil-like.

Pain is a common complaint and it may simulate the pain of gall bladder disease, renal colic, gastric crises, acute appendicitis, peptic ulcer or other abdominal syndromes. Many emergency operations have been performed as a result of the pain of an irritable colon. Commonly the pain is in the left upper quadrant or along the course of the colon. These latter points are valuable in the differential diagnosis. Relief frequently follows the emptying of the colon and patients state they feel better when the bowels are regular.

The chronic dyspepsia which most of these patients complain of is possibly due to the vagal stimulation. The sense of fullness after eating, the bloating and belching, the vague abdominal discomforts and the "rumblings within" of Samuel Pepys are thus produced. General nervousness and the introspective, worrying personality accompany the irritable colon and often make treatment partially ineffectual.

Physiology

A brief discussion of the normal physiology of the colon is essential to an understanding of the abnormal. The vegetative nervous system controls colonic functions; normal control being the result of the balance between the vagus nerves, which are the accelerators and the splanchnic nerves, which are the inhibitors. These nerve impulses control the three types of intestinal movements: first, the pendulum movements, which serve to mix the food derivatives with the digestive juices; second, the peristaltic movements, among which are the mass movements, propelling intestinal contents analward; and third, the antiperistaltic movements which provide for retrograde transmission of the colonic contents. The latter result in a longer retention of the contents of the cecum and ascending colon, permitting bacterial digestion as well as increased absorption.

This automatic regulation of the colon is mediated by means of Auerbach's plexus, although the serosa plexus is said to play a part. The importance of this control is to be kept in mind in referring to certain changes to be described later. The secretory function of the large intestine is controlled by impulses from Meissner's plexus which is, in turn, influenced by reflex and psychic impulses that excite or inhibit.

It is obvious, then, that the function of the colon is the result of a balance between highly sensitive sets of neuro-musculatory and neurosecretory mechanisms which must work together in a co-ordinated or synergistic manner.

Etiology

Diverse opinions are met with in considering the etiology of the irritable colon. A number of factors, however, may be differentiated, one or more of which can apply to any particular case. I shall take these up separately. First of all, it is widely recognized that this syndrome is seen largely in patients of asthenic habitus who have been endowed with a rather unstable neural balance, or as Ryle (3) so aptly says, come from "nervous stock." Friedenwald (4) and his co-workers have stressed the neurogenic basis of this condition in their review of five hundred cases. This conforms to the opinion expressed by Brockus (5) and his associates, as well as that of Bridges (6), who found an unstable nervous system in 85 per cent of his cases, of Gilliland and Sigoloff (7), of Barker (8) of Bargen (2) and many others.

Yet there are many cases in which we can detect no nervous factors or where they are but secondary and in which the purgative habit itself has resulted in an abnormal function. Such is the case of a patient I have in mind, aged twenty-six, whose history and findings are those of an irritable colon, spastic state, present throughout her life, associated with migraine, who has been completely relieved of all symptoms including her headaches by prohibiting purgatives and laxatives and instituting a balanced diet and regular habits. There is also an allergic taint in her history.

The frequent complaint of long standing constipation, while a result of colonic irritability of a spastic type, becomes focused in the patient's mind and leads to the use of a purgative, itself a cause of continued irritability.

A third group of my cases have had definite allergic family or personal histories. Five out of the last thirty patients have had positive reactions to foods, either clinically or by means of intradermal skin tests, and a sixth is under suspicion at the present time.

Statistical analysis shows that the irritable colon is found more often in women than in men, about a four to one ratio, most often

between the ages of twenty and forty years, and definite association is noticed with chronic involvement of other portions of the abdominal eavity. The incidenee of the associated disease varies, but in the main 13 per cent to 23 per ecnt of patients have had an appendectomy, and from 15 per eent to 37 per cent have, or have had, a chronic cholecystitis. It has been my personal observation that in a majority of eases a chronie appendix, a chronie choleeystitis, some pelvic disturbance, and hemorrhoids are the most common etiologic faetors in the production of a *reflex* irritable colon. Thus, we may speak of a fourth group of eases, presnmably secondary to other lesions. It has been shown that right sided abdominal disease produces a spasm of the distal half of the colon. Roentgenologists observe this often, and unless very careful and discriminating, will attribute too much importance to the increased tonus and overlook the presence of chronie involvement of other portions of the alimentary tract. Many of these patients fail to obtain relief following operation because the original stimulus of the reflex arc has been permitted to remain so long that the irritability of the colon persists as a well established, and now independent, syndrome even after its eause has been removed. As I will point out later, long continued and improper dieting for one or more of the above conditions may itself set up an irritable colon. The reflex stimulus of hemorrhoids is often overlooked.

A fifth group of cases are those in which a focus of infeetion leads by absorption of toxins to an abnormal state of nervous irritability or a general rundown condition, and this is condusive to the secondary occurrence of an abnormality in the function of the eolon.

The influence of vitamins is still another important faetor in this group of cases which, in spite of the numerous men studying this problem, has been overlooked. The research of McCarrison (9) for example, on vitamin deficieneies in monkeys has been totally disregarded. I have noted the similarity of the symptoms between certain cases of irritable eolon and certain cases of pellagra with gastro-intestinal upsets. Important, too, has been Larimore's (10) observation of the valuable therapeutie effects of a high vitamin diet in cases of uleerative colitis. Since some authorities maintain that ulcerative colitis is an end result of this so-called spastic or mucous eolitis. I began studying the literature for observations of gastro-intestinal disturbances resulting from vitamin deficiencies.

In the recent symposium on vitamins reported in the Journal of the American Medical Association, Eusterman (13) describes the cornification and metaplasia of the epithelial elements that occurs when animals are fed on vitamin A deficient diets. He quotes Wilson and Du Bois, who noted a diarrhea in a group of children and adults who were on vitamin A deficient diets, and mentions the rapid relief given by a high vitamin diet. In the deficiency syndrome of pellagra, the diarrhea is a marked gastro-intestinal symptom in spite of comparatively mild or absent pathological findings at autopsy. Anorexia has been consistently noted as a result of vitamin B deficiency.

Studies of the gastro-intestinal tract of animals who have been fed diets deficient in the various vitamins have revealed very interesting and rather eonclusive findings. McCarrison (9) has made careful observations in groups of monkeys fed controlled diets. Consistent findings were revealed, nameiy; loss of appetite, loss of weight, progressive anemia, low temperature, vomiting, diarrhea, dysentery and finally death. These effects disappeared rapidly when a balanced, full vitamin dietary was given the animals before they became moribund. He states, "a colitis can be produced by a deficieney diet with as great regularity in monkeys as can anemia and dyspeptic symptoms." Pathological study of the post mortem specimens of these animals showed most important changes in the gastro-intestinal tract. Briefly they were: loss of omental fat, enlargement of the mesenteric glands, dilatation of the stomach with thinning and ballooning of the small intestine, intussuseeption, atrophy of the longitudinal muscle of the colon with loss, in places, of its characteristic rugae, inflammatory changes in the mucous and submueous coats of the entire alimentary traet, atrophy and necrosis of the villi and of the muscular coats of the bowel, degenerative changes in the plexus of Auerbach and a colitis.

In view of the eontrol exerted by the plexus of Auerbach on intestinal motility we ean readily understand the clinical effects which

may well follow degenerative changes in this plexus. In addition, the atrophy of the villi and the invasion of the mucous and submucous coats of the bowel with inflammatory changes will combine to impair the neuromuscular control of the entire tract and lead to delayed transit of its contents. This suggests that long continued use of imperfectly balanced and deficient food plays an important part in the production of functional disturbances of the digestive tract.

McCarrison (9) further states that the effects of vitamin deficient diets are increased when there is deficient protein and excessive carbohydrate in the food and also in the presence of pathogenic organisms. Tilden and Miller (11) have corroborated McCarrison's studies and conclude from their experiments that "the gastro-intestinal condition noted in ten of eleven monkeys was the characteristic effect of depletion of vitamin A in this animal." They state that the first symptoms of low ration vitamin A diets were loss of weight and anorexia, soon followed by colitis and finally by death. It is interesting to note that gross lesions of colitis were observed at post mortem; in one animal, a severe ulcerative colitis; and, in others, under the microscope minute ulcerations of the mucous membranes were frequently seen. Turner and Loew (12) found intestinal inflammation with marked enteritis and dilatation of the stomach in a group of monkeys under controlled experiments. Harden and Zilva (quoted by Tilden and Miller) made the same observations.

Vitamin starvation then has been abundantly studied and shown to result in marked changes in the neuro-muscular control of the intestinal tract ending in a definite colitis, demonstrable under the microscope, and responding promptly to a high vitamin, high protein diet. Excess or carbohydrate tends to inhibit vitamin assimilation (McCarrison). The rapid improvement under vitamin-rich diets argues for a more than casual relationship of avitaminosis and the functional alimentary disturbances. As we study the symptomatology of the irritable colon in our patients and compare them with the experimental work and the known effects of vitamin deprivation, we can understand much that has remained confusing and find an important clue to rational and effective therapy.

To repeat, the symptoms are well known. The constipation, the pain, and the dyspepsia are dominant complaints. The fullness, the bloating and the belching are probably the result of vagal stimulation although a vitamin diets produce similar symptoms in monkeys. Many similarities between the symptoms in man with an irritable colon and those in monkeys fed on vitamin-free diets are easily seen.

Physical Examination

Physical examination reveals little as a general rule. The neurotic type, the asthenic build, the low blood pressure, the not infrequent anemia, the general irritability, the palpable loop of spastic bowel, and the large amounts of mucous occasionally seen in the stool form the bulk of our physical findings. *X*-ray examination is necessary to rule out actual organic disease and may reveal colonic spasticity and motor delay. As we pause here, let us recall that McCarrison and his corroborators have shown these very changes may be the results of vitamin starvation.

The following corollary may be drawn: Most of these patients have been on unbalanced diets, particularly containing an excess of carbohydrates and low vitamins. Neurotic symptoms, anemia, low blood pressure, asthenia, bloating, distention and bowel disturbances belong to both the patient with the irritable colon and to the animals fed on diets lacking in vitamins. Only, in humans, the deprivation does not amount to an actual starvation.

Treatment

Since I have emphasized in so great detail the vitamin factor in these patients, let me consider it first. What actually is the effect of a high vitamin, low carbohydrate diet on these patients? Does it compare with that on the animal? My answer to the last question is "yes." For the past eighteen months I have been using a high vitamin diet, low in residue and in carbohydrates, supplemented by cod liver oil and brewer's yeast, to give additional accessory food factors, with unusually good results. In the great majority of my patients, in fact, with but very few exceptions, relief has been obtained within two weeks' time and as long as the patients observe their diets and take their vitamins they remain improved. A number have returned to say they felt better than at any time during the past ten or fifteen years. Yet

all had been on the usual treatment of belladonna, low residue diets, bromides and oil enemas on a number of previous occasions.

This is not to say, however, that I do not use sedatives or antispasmodies. Often it is necessary to give luminal in varying doses to control the extreme irritability of the bowel and the nervousness of the patient. Most patients improve more rapidly with the use of this drug than if given bromides, yet do not if the diet is not followed. In addition, I use belladonna in varying amounts, dependent upon the patient. Frequently, the use of retention enemas of warm oil is necessary to soften the fecal mass, to soothe an irritated mucous membrane and aid in the establishment of a regular morning stool. Regular habits are emphasized.

The pyschic make-up of the patient must be studied and a general revision of a patient's social, business and moral environment made in some cases. Not only must the emotional life of the patient be watched during the time required for re-establishment of the normal functioning of the colon, but all possible foci of infection or other pathology within the abdomen or pelvis must be taken care of. Occasionally in very acute attacks, a narcotic may be given.

I have not found the use of calcium and parathyroid medication of particular value. In several cases I have felt that their use may have helped, but I am not prepared to place much faith in these two drugs without further observation and study.

In conclusion, may I again express the belief that the irritable colon, whether of spastic or of mucous state, is commonly the result of a long continued unbalanced diet, usually rich in carbohydrates and poor in vitamins and proteins, and that this type of functional alimentary disturbance responds satisfactorily to the balancing of the diet, particularly in regard to all the vitamins. The experimental basis for this conclusion has been presented and a short description of my clinical results given. The relation of allergy and chronic abdominal disease to the irritable colon has been pointed out.

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DISCUSSION

DR. WALTER G. EBERLE, Fort Smith: I think one of the most unfortunate things in recent medicine has been the diagnosis of colitis; unfortunate for the patient, and very fortunate for the physician. We have increased our practice tremendously by telling patients they have colitis. They come back and they come back, they go to the other doctors and they then come back to us again. Unquestionably it is a very popular and very attractive diagnosis for the nervous, unstrung, highly civilized lady patient of the present day. It has become so popular that patients now make their own diagnosis of colitis, and they have so many remedies, so many fads and so many fancies, through the various ads of the day, that it has become almost laughable, in some respects, to listen to the tales these ladies tell. The reason that I mention that first is that they are all more or less of the same type. How many of us see this irritable colon or colitis in the upper class of people? How many do we see in the rural individuals, men or women? How many do we see in the negroes in the rural sections or on the farm, who have lived on corn bread, salt meat and molasses during the period of depression? I do not know what vitamins those three items of food may contain. Certainly there are few of any consequence. We do not see colitis in these patients. In fact, they are a rather healthy race of individuals. We are hunting and hunting for what this disease of colitis might be. We are just as much in the dark now as we were when the first diagnosis of colitis was made, other than that type of colitis which contains mucous and bloody stools and a definite ulcerated colon.

The papers are most enlightening; they are the most interesting. I want to compliment both Dr. Levy and Dr. Wolfermann upon the presentation of these papers because we must think in the present-day terms as they have outlined to us in the papers. Those are the limitations that we must go by in our present ideas of this condition.

The taking of purgatives, I feel confident in my own mind, is by far the most outstanding cause of this so-called colitis. Rarely do we find it in patients who are not in the habit of taking purgatives. Rarely do we find it in patients of stable nervous mechanism. Rarely do we find it in patients who are happy, cheerful and contented. Now, what that means from a psychological standpoint is deeper than I can go into. I don't know. But I am just analyzing my patients for you.

Dr. Wolfermann's classification is most interesting and most useful in determining how to outline our cases; how to classify them as to hopefulness. And, I might say, how to classify them as to hopelessness, because, frankly, I have my first case of true proven colitis, irritable colon, spastic colon, to see who has remained cured; I think, maybe not due to the lack of treatment, not due to the lack of instruction, but rather due to our lack of intelligent living, on a civilized basis.

I want to compliment both for most interesting papers on a most interesting subject that I fear some day is going to be taboo in our medical classification of diseases.

DR. D. A. RHINEHART, Little Rock: Dr. Levy asked me to discuss colitis in one minute. It couldn't possibly be done, I don't think, in one day or one week or possibly one month. I agree perfectly with Dr. Eberle when he says that this is possibly a fad at the present time. We may have another Irving S. Cobb in two or three years from now come up and instead of writing or speaking about operations he will write or speak something about colitis. I don't think there is any question but what the habitual use of laxative medicines is a large etiological factor in the production of this condition.

You know, some two or three years ago some one wrote a somewhat facetious but very serious letter to the publisher of a medical magazine, in which he said that his colleague across the street had just ordered a barrel of cascara and the order went ahead to say that the skin disease books in suggesting a treatment for skin diseases always started out by saying, "Keep the bowels open except in the treatment of itch." That was the one condition in the whole book that wasn't treated with a physic to start with. Now, a lot of this, I think, is due to the physician.

If there is any one thing that I am thoroughly convinced of in the treatment of colitis or constipation of the spastic type, if you will, that it cannot be cured with physic medicine. The conception does not seem to be general that constipation in a large percentage of cases, 89 per cent, in Dr. Wolfermann's series, is due to an overactivity rather than an underactivity of the alimentary canal, similar or comparable to spasm in the muscle. Since all physic medicines are irritating and increase the spasm, the attempt to cure the spasm by increasing the spasm is, of course, on the face of it absurd.

We have sent to us weekly almost, monthly certainly, samples of different preparations. I think the most notoriously misused of all of these at the present time is caroid and bile salts. Now, caroid and bile salts might be all right if it was limited to caroid and bile salts but be sure to read, before you prescribe a preparation of that sort, all the fine printing on the label and see if there is not phenolphthalein or some other preparation in the prescription, which makes it nothing more than a compound cathartic pill. As far as caroid and bile salts are concerned, they are very widely prescribed by physicans, but I think they produce a great deal more trouble than they ever cure.

With reference to the diet, Alvarez in a delightful little book on nervous indigestion compares the length of the intestinal tract in the herbivorous and carnivorous animals. For instance, he said that the rabbit has an intestinal tract forty times its body length, and the giraffe has an intestinal tract 100 times its body length. While he doubts very seriously if the intestinal tract or alimentary canal of man is much more than ten times his body length. And, therefore, he compares more with the carnivorous animal than with the herbivorous animal. It is also a well-known physiological fact, I think, that the herbivorous animals have a special ferment in the alimentary canal for the digestion of cellulose but that the carnivorous animals, including man, don't have such a ferment; and that the only way that cellulose in the residue can be disposed of is by fermentation.

There is not any question, I think, about improper diet. At the present time the dietary of the human race is going to the highly refined carbohydrates in face of the fact that possibly our ancestry was almost entirely carnivorous up to within possibly the last two or three thousand years, and that may be one of the causes for this condition.

Dr. Wolfermann's classification is interesting. I might say also it is rather novel. I believe I will argue my points out with Dr. Wolfermann personally, but I think I can take grade 3 colitis with possibly a half pint more enema and a little bit more time and make it a grade 1.

I am glad, however, Dr. Wolfermann has made the attempt to classify these particular lesions. Of course, when I get back home and get back to work, if there are any mice coming into the trap, we will attempt to follow out some of his classifications.

Personally, I am just a little afraid that colitis, as Dr. Eberle says, may be getting to be a fad. We do know we find that in a very large percentage of individuals; we know all about them. Now, as to the nervousness, whether the nervousness is an etiological factor or is the result is a question that hasn't yet been answered. But we do know lots of things that will benefit the condition. And finally, Dr. Eberle said a mouthful when he said that you don't find this particular condition in the negroes, you don't find it in the rural communities. It isn't found in the lower class of individuals.

I think the subject was very adequately covered by both essayists, and I certainly enjoyed their papers very much.

DR. LEVY, in closing: I want to thank both Dr. Eberle and Dr. Rhinehart for their discussion.

I have seen these cases in the clinics of the University of Arkansas School of Medicine as frequently as I have seen them in my private practice. I also see them in the City Hospital frequently. Too, I have seen this type of patient coming from the rural districts around Little Rock. Therefore, I cannot subscribe to the belief that the irritable colon is limited to any particular class or social status.

As for the eventual dropping of the term "colitis," I quite agree. In the first place, as I have pointed out, it is a misnomer and has no place in our literature except in describing cases

of amoebic or bacillary dysentery or cases of chronic ulcerative colitis.

Very interesting work on avitaminosis which is being done at the University of Arkansas School of Medicine and other work which is planned is worthy of attention, and points to an entirely different conception than has been the vogue. As a result of the work I have discussed in my paper, and that being done at our medical school, I believe we will eventually conclude that we are dealing with an avitaminosis of which an irritable colon is but one part of the general picture.

DR. S. J. WOLFERMANN, in closing: I have nothing further to add except that I wish to thank the gentlemen who discussed the paper. I have discussed the barium enema subject with Doctor Rhinehart before and he was very charitable in his discussion today. I believe, as Doctor Levy said, that there is something very wrong in the usual management and understanding of this condition. I have tried to bring out this entity from a purely clinical standpoint.

The name is undoubtedly wrong and I do not believe we know much about the etiology; probably our method of diagnosis is incorrect, but this much is certain: Daily a group of patients is coming into the average doctor's office who complain of gastro-intestinal symptoms, and who, upon investigation, have this clinical syndrome we are discussing. It is our duty to try and understand these patients and relieve them by proper treatment; this paper has merely described the routine most successful in our hands. Some day our attitude toward the entire syndrome may change, but with our present knowledge a system giving relief is paramount to the patient.

Abstract

Management of Amebic Dysentery. Robert E. Rock. Minn. Medicine, December, 1933, 16:748-749.

The practical measures employed in the treatment of amebic dysentery are summarized. (1) Complete bed rest. (2) Subcutaneous injection of emetine hydrocholoride in dosage of 0.04 gm. daily for seven days. (3) Heaping teaspoonfuls of bismuth subnitrate or subcarbonate every four hours for seven to ten days, best administered suspended in warm water for the first few days, and later in hot milk. (4) Liquid diet for the first four days. (5) Ipecac in salol-coated pills, administering ten five-grain pills each night for one or two weeks. The salol coating is pierced with a needle to permit intestinal disintegration. The use of ipecac is not recommended. (6) Yatren is given in doses of six grains three times daily by mouth and is concurrently exhibited per rectum in 200 cc. of 2½ per cent solution retained for two hours. The latter is preceded by a cleansing enema of 2 per cent sodium bicarbonate solution. The author does not recommend the use of yatren. (7) Neoarsphenamine, in 0.3 gm. doses, is given intravenously every third day for ten injections, or stovarsol may be given by mouth in 0.25 gm. doses three times daily for a week and then once daily for two weeks. (8) Fever rise and leucocytosis is an early indication of suppurative hepatitis. The patient should be advised to watch for a period of fever after he becomes cyst-free and is to report every three months for a stool examination. (9) The patient's room should be screened and other members of the family should have stool examinations.

Original Article

THE RELATIONSHIP BETWEEN PUBLIC HEALTH AND THE PRACTICING PHYSICIAN*

F. O. Mahony, M. D., F. A. C. P.
President-elect, Arkansas Medical Society
El Dorado

The relationship between public health organizations and the practicing physician is, too frequently, in controversy. A considerable amount has been said but practically nothing written on the subject. No considerable effort has been initiated to satisfactorily solve the many problems involved, despite the fact that the subject is of intense interest to the public at large, and the extravagant neglect in the so doing is to the extreme disadvantage of the profession. That there exists dissension, dissatisfaction and unfriendly feeling in certain sections is, in no sense, peculiar to the State of Arkansas, but is found to obtain in the country at large. Persons engaged in public health work are truly specialists, a specialty in relative importance essentially as significant as any other medical specialty; being a specialty, its underlying principles should be developed in a manner strictly ethical. Public health may be considered as one of the most important branches of medical science, since many of its esteemed investigators have been responsible for important scientific discoveries. Many diseases heretofore uncontrollable can, because of such discoveries, be either completely annihilated or effectively controlled. The present program is, in most instances, favored by the public at large, yet, because of the fact that modern public health practices as compared with other branches in the medical field are relatively new, a complete understanding involving its relationship with the medical practitioner, has, in some instances, either been poorly defined, absolutely ignored or completely misunderstood.

The official health organization must attribute its parentage to that of organized medicine, and as a consequence of this, its success will be in inverse proportion to the interest, enthusiasm and attitude of the medical profession. It would be quite unfair for a

*Read before the Ashley County Medical Society, September 12, 1933.

health organization to promulgate its polieies and praetiees in eontra-relationship with the medieal fraternity; being a ehild of organized medieine, it must be loyal to its progenitor, otherwise its prestige will in the end be diminished—and rightly so. The idea that an aggressive health program ean be effeetively initiated without the sympathetie support of the medieal profession, is eompletely erroneous, and that the publie may step in and whip the profession into line will not work in praetiee. The publie is not organized and even though it were, would lean largely on the intelligent and honest adviee of the medieal man. He alone is reeognized as the ehief advisor in all matters pertaining to disease and health.

There is, unquestionably, an urgent need for a well organized health ageney in every eommunity. Its speeifie duties should be well defined and the publie aequainted with the sphere of its aetivities. It should be devoid of partisan influenee and affiliation. The human raee should not be afflieted with an organization set up and influeneed by greedy and unserupulous politieal influenees. Unfortunately, when tax money is used to defray the expense of sueh an organization, then politieal influenees enter therein to offer their views and thus impede progress. It is quite obvious, therefore, that sinee some politieal influenee must enter in, its signifieanee should be minimized. The personnel assigned to sueh organizations should be properly trained in publie health administration. Sueh personnel will, with years of training, become progressively more valuable to the eommunity and their tenure of offiee should not be a matter of speeulation but should be seeure. The idea that they should be removed from offiee beeause of ehanges in governmental administration, is to the serious disadvantage of any offieial health ageney. A physieian, nurse or any other publie health employee must not only be fair representatives of their profession, but must, in addition thereto, be well rounded. They must be diplomatie, taetful, understanding and sympathetie with problems involving not only the medical fraternity, but those of the publie as well, and as a eonsequenee, these salient qualifieations should be proteeted during ehanges in administrative power and in periods of adversity. Because of dependence upon politieal influenees for perpetuation, health personnel, unless on eonstant guard, may tend to enter into praetiees not eonsistent with the essential funetions in their speeialized field, the eonsequenee of which is not only derogatory to the position and ideals of their high ealling, but misleading, unfair, and to the ill advantage of the publie. The physieian may at times frown upon sueh praetiees and in so doing may be eompletely misunderstood by a deluded publie, resulting in his serious, though unjustified disaffeetion.

The doetor must reeognize his responsibility to the publie. He must, if neeessary, awaken to a realization that there is sueh a responsibility. To sit idly by and aequiesee to eurrent ehanges in soeial trend without assuming or obviously recognizing a sense of responsibility, is nothing more nor less than adding slowly to his eup, hemloek, giving rise to progressively inereasing somnolence and its resulting insidious suieide. It is essential that every physieian must be virtually a health offieer, spreading the doetrine of preventive medieine, not neeessarily confined to his elientele, but to the eommunity of whieh he is not an insignifieant part. He must be on his guard, however, lest he depart from the prineiples of ethieal polity. To withhold knowledge and remain passive, when by virtue of his knowledge in seientifie medieine he ean eontribute towards the elimination, deerease or prevention of many diseases, is not only unfair to a depending people but minimizes the usefulness of his serviee to a eommunity. Our eode of ethies may be either modified or given a more liberal and appropriate interpretation; our medieal aneestors intended it so. A group of laws so fashioned as to apply to conditions a century ago eannot be expeeted to eope with eurrent eeonomies without some degree of liberalization. To permit the seourge of disease and its attended vast waste of life, when we have at our disposal the means for prevention, is a eireumstanee that may not long be tolerated. Sueh problems have arisen largely beeause of derelietion within the profession itself and the solutions thereof will be dependent upon the intelligent and sineere thought of our medieal leaders. Eventually, in the absenee of our awakening and in the midst of our slumber it will be unneeessary for someone to tell us that our serviees are largely unneeessary and

that society, who depended upon us for solutions, becoming restless, assumed control and provided, in the form of paternalism or state medicine, a very poor and wanton substitute in its vain efforts to solve its own difficult problem.

The field of immunology as applies to the protection of masses against certain preventable diseases, is essentially a task belonging to the family doctor. The promiscuous administration of protective vaccines, paying no respect to the financial status of people, is a controversial subject and will disappear if and when the family physician accepts this responsibility. The practice, being fraught with danger, is from many angles pernicious and deserves an early and satisfactory solution. By assuming this responsibility, the physician will aid in dismissing the chief criticism of modern public health practices. The health personnel will at that time be released from a function heretofore subjected to acrimonious criticism and will have more hours to contribute to the safeguarding of water supplies, the sanitary control of milk, the proper and adequate disposal of sewage, the abatement of sanitary nuisances, the control of malaria, as well as many other duties which will absorb his full time and in no manner infringe upon the physician's field of activity. Official health agencies earnestly solicit the sympathetic understanding and support of the profession in this field and have an urgent desire to become actively engaged in non-controversial matters. It is at the moment ready to return this foster child to its appropriate parent; the profession should not be adverse to this plea.

An objectionable phase of assumed public health activity and one essentially apart from its field has grown in recent years into prominence; I refer to certain so-called corrective clinics, with particular reference to those involving surgical intervention. The widespread conduction of tonsil and adenoid clinics, is, to my mind, fraught with hazard and in most instances unnecessary. Any promiscuous and indiscriminate removal of accessory appendages is a menace to the best interests of the public and most certainly disparaging to good medical practice. There are exceptional conditions, however, where these corrective clinics, when adequately equipped and preliminary preparations made for emergency needs, are indicated. I refer to certain isolated areas where hospital facilities and surgical skill are unavailable. In most instances, however, because of improvement in modes of transportation and proximity to medical centers, this type work should be abandoned. Where these clinics are inaugurated they should be sponsored and under the guidance and supervision of the county medical society. Fact-finding clinics, however, are, as a rule, justified, the chief purpose being to determine the presence of physical defects and encouraging those in need of surgical or medical attention to consult a competent physician. Where any clinics are planned, health personnel, if assuming the initiative, should confer freely with members of the medical profession in the locality, soliciting their co-operation and avoiding entrance into a field subjected to their opposition.

As practicing physicians and as public health employees we are keenly interested in health education. We as an organized group should not only encourage but should sponsor any and all altruistic moves whereby the public may be enlightened in subjects of pertinent public health importance as applies to the prevalence and prevention of disease. The most important and effective health education move is accomplished during the period of early childhood. Teachers in kindergarten and grade schools should be required to pursue in recognized institutions, courses in physiology, hygiene, sanitation and other allied subjects. Elementary classes in these subjects should be instituted in all public schools and children taught from the very beginning basic and fundamental principles involving health. The teacher, without being a physician or even a nurse, can be taught to recognize gross physical abnormalities; she can assist physicians and health authorities to no little extent by segregating those under her care having physical incapacitations and by virtue of her position, her esteem and prestige, can do much toward having physical defects corrected. She can also be taught the various means of suspecting contagious infections and the seriousness of her findings. She can, in a great number of instances, and in many ways, if adequately trained, supplant the routine and time-consuming practices of the school physician or school nurse, leaving them more time to care for other necessities. In many States

teachers are required, before being eligible for appointment, to become well rounden in these subjects. After the plan has been perfected, it may ultimately prove that the position of the school nurse is quite unstable and that most of her functions have been completely absorbed by the teacher, though the thought is Eutopian and need cause us no apprehension at this time.

You will immediately apprehend that I have presented many suggestions involving problems that are in the main unsolved and have made only feeble attempts to solve some of them. The whole question is of serious importance and it is my sincere desire and I will feel fully repaid if the substance of my suggestions is awarded the intelligent thought of our profession. This will ultimately result in a more comprehensive and more satisfacfactory solution. Our official health organization is intensely interested in the inauguration and conduct of a public health regime in Arkansas that will meet adequately conditions of the time; one that will serve to the distinct advantage of the public at large and one that will deserve and receive the complete and full support of organized medicine. After all, our ultimate purposes are identical. We are striving towards the same goal. We are all servants of the public and our interest is devoted entirely to the betterment of conditions.

Personal and News Items

Dr. H. J. G. Koobs, Rogers, addressed the Bentonville Rotary Club December 13th on "Boys' Work."

Dr. Ira Ellis, Monette, was installed as grand sentinel of the grand chapter of the Arkansas Order of the Eastern Star, December 11th.

Officers elected by Benton County Medical Society are: President, C. S. Wilson, Siloam Springs; Vice-president, L. O. Greene, Pea Ridge; and Secretary-Treasurer, E. A. Pickens, Bentonville.

Dr. Henry F. DeWolf, formerly of Cleveland, Ohio, has opened an office at 1220 Donaghey Building, Little Rock, for the practice of dermatology and syphilology.

Dr. J. D. Riley, Superintendent, Arkansas Tuberculosis Sanatorium, addressed the Noon Civics Club of Fort Smith, December 8th, on "Tuberculosis" in furtherance of the Christmas Seal campaign.

Union County Medical Society has elected the following officers:

President, L. A. Purifoy, El Dorado.

Vice-president, W. L. Newton, Smackover.

Secretary-Treasurer, F. L. Irby, El Dorado.

Delegates, A. D. Cathey and J. M. Smith, El Dorado.

Washington County Medical Society has elected the following officers:

President, Preston L. Hathcock, Fayetteville.

Vice-president, C. P. Cisco, Springdale.

Secretary-Treasurer, Fount Richardson, Fayetteville.

The following program was presented before the Southeast Kansas Medical Society at Fort Scott, Kansas, on December 15th:

"Uterine Hemorrhage: Its Diagnosis and Treatment"—I. Fulton Jones, Fort Smith.

"The Management of Cranio-cerebral Injuries"—A. F. Hoge, Fort Smith.

"The Surgical Treatment of Tuberculosis" —F. H. Krock, Fort Smith.

Officers of the Cotton Belt Lines Medical Association elected at the annual meeting in

Texarkana, December 11th are: President, Dr. E. D. McKnight, Brinkley; Vice-President for Arkansas, Dr. I. R. Johnson, Blytheville, and Secretary-Treasurer, Dr. Wm. Hibbitts, Texarkana, re-elected. The Miller-Bowie County Medical Societies entertained the visiting physicians, about 75 in number, with an evening banquet.

Among applications filed with the Public Works Administration is the request from St. Vincent's Infirmary, Little Rock, for a loan of $320,000 to construct additional facilities, including a new fireproof building which will replace part of the present administration building. This addition would double the capacity of the hospital of the operating, maternity and roentgen-ray departments. The city of Harrison has also filed application for a loan of $69,320 for the construction of a Municipal Hospital.

Dr. F. D. Smith, Blytheville, Secretary, Mississippi County Medical Society forwarded on December 7th, the first 1934 dues received in the State Secretary's office. These were from the following members of that society: T. F. Hudson, F. L. Husband, I. R. Johnson, W. J. Sheddan, F. D. Smith, J. L. Tidwell, A. M. Washburn and C. E. Wilson. The second society to make remittance was Lawrence County, dues from the following members being received on December 18th: W. S. Kendall, T. C. Guthrie, O. K. Hukill, J. E. Hardeway, Elmer Rainwater, C. D. Tibbels, Wm. Johnson, J. C. Hughes, W. J. Robinson, W. W. Hatcher and H. R. McCarroll.

A SUMMARY OF THE NEW FOOD AND DRUG BILL—S. 1944

The aim of the present food and drug act is to protect public health and to prevent deception of consumers. Twenty-seven years of enforcement have revealed many weaknesses in the law which defeat full accomplishment of its purpose. The attached bill is intended to plug these loopholes and to make the statute a more effective instrument against modern abuses. It preserves all worthy features of the present law and contains in addition the following new features:

1. Jurisdiction over false advertising. Many foods and drugs bear no false statements on their packages but their advertising is blatantly deceptive. Legal actions under the present law against false labels result merely in correcting the label while continued deception of consumers may be accomplished by advertising the false claims formerly made on the labels.

2. Inclusion of cosmetics. The health of many persons is impaired by poisonous cosmetics, and false labels and advertising are frequently employed for these products. The present law has no jurisdiction over cosmetics. This bill will correct these evils.

3. Better control of poisonous foods. The present law contains no provision against poisons in food unless they are added. This bill prohibits the sale of dangerous foods regardless of whether the hazard is caused by added poisons or otherwise. Under the present law the testimony of expert toxicologists must be introduced in every case to show the quantity of added poison in the food may be harmful to health. The bill authorizes the secretary to acquire expert advice and then to fix a safe tolerance for added poisons.

4. Authorization to establish definitions and standards for food. The present law authorizes the establishment, in the limited field of canned foods only, of one standard of quality for each generic group of canned food. This bill authorizes the establishment of standards of identity and definitions of quality for all foods.

5. Permits may be required for the manufacture of food that may be injurious and against which the public cannot be effectively protected by other provisions of the bill. Some foods are susceptible of dangerous contamination in unsanitary factories. The detection of such contamination by examination of samples from interstate shipments, the only procedure authorized by the present law, is often difficult or impossible. Under this bill permits may be required for the interstate shipment of such foods and permits would not be given unless warranted by sanitary conditions in the factories.

6. Provisions made for more adequate control of false curative claims for drugs. Many persons are influenced by false curative claims for drugs to postpone or discontinue rational treatment for serious diseases. Frequently the disease is thus permitted to progress and illness is protracted or untimely death follows. As stated in (1), there is under the present law no control of false curative claims in advertising. Even in establishing a case against such claims in labeling which, unlike advertising, is subject to the present law, the Government must show not only that the claims are false but that the manufacturer knows they are false. Public protection against this evil is therefore inadequate because proof of a manufacturer's actual state of mind is extremely difficult to establish. The new bill prohibits false curative claims in both labels and advertising. The Government would not be required to show that the manufacturer knows they are false.

7. Fully informative labeling of foods and drugs required. The present law prohibits false labeling but does not require the manufacturer to state the whole truth as to what his product is. This bill requires foods to be labeled with their common names and drugs to be labeled with the common names of each therapeutic or physiologically active ingredient. It is an expression of the right of the consumer to know what he is eating and what he is taking for his ills.

8. More adequate penalties. Penalties in the present law are very mild. They may be regarded by some unscrupulous firms as license fees for the conduct of a lucrative illegitimate business. Heavier penalties in the bill and authorization to stop violation by injunction proceedings should have a deterrent effect on those manufacturers who are disposed to risk violations for monetary gain.—Prepared by Food and Drug Administration U. S. Dept. of Agriculture, September 16, 1933.

THE JOURNAL
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DR. W. R. BROOKSHER, Editor
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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Editorials

MEDICAL ECONOMICS
(An Editorial by R. B. Robins, M. D., Camden)

Medicine is not only a scientific calling, but it is a business and a means of livelihood as well. Our medical organizations have been predominantly interested in the scientific aspects of the profession and have given very little attention to the economic phases. From a scientific standpoint we have been progressive, but from an economic standpoint, we are following the same traditions that have been handed down to us from generation to generation.

It is probably not an exaggeration to state that at least ninety-five per cent of the physicians are dissatisfied with economic conditions relating to the practice of medicine. This is not particularly due to the depression—it was true before the depression. A large part of it is our own fault. We have failed to do anything about it in an organized way.

One of the growing problems is medical charity. Physicians have assumed this burden for ages and now the public expects it of them. Why should the charitable dispensation of medical services be administered on a basis different from the dispensation of other commodities to the poor? The generosity of the doctor has been increasingly imposed upon, until today the exploitation of this generosity by the public; while it is affording a good living to hundreds of hospital, clinic and social service workers; is pauperizing the average practitioner.

Why should the public expect a doctor to give his services on the staff of a charity hospital or otherwise without receiving some compensation? Yet doctors scramble to get on the staff of such an institution in order to give their services away. These and many other abuses will continue until we give more thought to medical economics in our medical organizations.

1934 MEMBERSHIP

"The dues for membership in medical organization at this time constitute the most important and relatively most valuable expenditure that can be made by you who must rely on medical practice as your life work

and for your livelihood."—*C. L. Cummer, Editorial, Ohio State Medical Journal*, Nov., 1933.

During the past year many radical changes in social theory and governmental policy have been effected. It is probable that others, vitally affecting the practice of medicine and the individual physician, will be inaugurated in 1934. Organized medicine has a direct concern in the solution of these problems which will arise; problems which must be solved in a systematic, efficient and thorough manner. Medical policies decided upon in 1934 will doubtless be in force for many years and it is imperative, therefore, that such policies have the approval of all physicians. If the medical profession is to preserve its identity, integrity and professional status, it must present an united front to the widely-heralded socialistic and paternalistic changes which are even now being suggested. Whatever the nature of these changes, they can be best met only if the medical profession is in a position to speak and act as a unit rather than as individuals. The greatest possible number of eligible physicians must be represented in medical organization.

There is no need to remind members of the Arkansas Medical Society of the importance and usefulness of medical organization for the welfare of the public and the physician. The past record of the society speaks eloquently on this point. However, in times such as these, it is essential that the society have the enthusiastic and active support of every eligible physician in Arkansas. Some physicians in the State who have been members have allowed their memberships to become delinquent. Other physicians, who undoubtedly are eligible, have, for reasons of their own, failed to affiliate with their county medical societies. Every physician needs the benefits which medical organization has to offer and medical organization, to be of greatest service to its members, must have the membership and support of all who can qualify. The prompt payment of 1934 dues is the first step in loyalty to your medical organization and you are urged to make this payment to your county secretary now.

PAY DUES NOW!

Proceedings of Societies

OUACHITA COUNTY

(Reported by R. B. Robins, Secretary)

The Ouachita County Medical Society met in regular monthly session Thursday night, December 7, 1933, at the Camden Hospital. After a delightful banquet, which was served by the nurses of the hospital, the following scientific program was given:

"Acute Conditions of the Abdomen"—Dr. H. W. Hundling, Little Rock.

"Electric Shock"—Dr. Val Parmley, Little Rock.

The next regular meeting will be held the first Thursday night in February at which time the Annual Ladies' Night program will be held.

The Monroe County Medical Society met in regular session at Brinkley, December 14th. There were case reports on convulsions (which elicited quite a lively discussion) after which the following officers were elected for the ensuing year:

W. H. Martin, Holly Grove, president; M. L. Dalton, Brinkley, vice-president; C. A. Henry, Clarendon, secretary; E. D. McKnight, Brinkley, delegate to the State Convention; M. I. Nederhiser, Brinkley, alternate.

Relative to the schedule of fees as instituted by W. R. Dyess, State Relief Director, the following resolutions were unanimously adopted:

"*Whereas*, the Monroe County Medical Society has always remained true to its traditions of free service to those who are unable to pay for same; giving a large percentage of its time and efforts free; and

"*Whereas*, the members of the Monroe County Medical Society have never increased their fees during time of prosperity, nor lowered them in time of depression; and

"*Whereas*, we, the members of the Monroe County Medical Society, believe that the fees in terms offered by the Federal Emergency Relief Administration are not satisfactory to members of this Society, and tend to a general reduction of fees and pauperization of persons who have previously been able to pay for medical service;

"*Be It Resolved* by the Monroe County Medical Society that it will continue its pre-

vious policies in the care of charity patients—trying to render gratuitous service, and charging regular fees to those able to pay—retaining its own liberty of action and its own judgment as to whom free service may be rendered."

C. A. Henry, M. D., Secretary.

Sebastian County Medical Society met December 12th and elected as officers for 1934: President, I. F. Jones, Fort Smith; Vice-president, B. L. Ware, Greenwood; Secretary, J. W. Amis, Fort Smith, and Treasurer, W. R. Brooksher, Fort Smith. The following program was presented:

"Radium Therapy in Medicine: Its Functions and Application"—W. R. Brooksher.

"Mikuliez's Disease—Case Report"—H. Moulton.

The society will hold its annual banquet and installation of officers on January 9, 1934.

The Washington County Medical Society met at Fayetteville, December 5th. Dr. J. L. Haugen, Prairie Grove, was admitted to membership. The following program was presented by medical officers of adjacent CCC camps:

"Oehsner Dressing in Infections"—Lieut. H. R. Anderson, Devil's Den Camp.

"Infections"—Lieut. P. G. Autrey, Frasier Camp.

"Infections of the Hand"—Lieut. Shelton, Locke Camp.

Members present: Morrow, Wood, Wallace, Mock, Gregg, A. Hathcock, Ellis, P. L. Hathcock, Briley, Bean, Cisco, Walker and Richardson. Visitors were: Autrey, Shelton, Anderson and Haugen.

Fount Richardson, Secretary.

Dr. Walter Carruthers and Dr. Robert Caldwell spoke on "The Diagnosis and Treatment of Osteomyelitis" and "Eye Injuries" respectively at the December meeting of the Sevier County Medical Society at DeQueen. Officers elected to serve during 1934 are: President, J. C. Graves, Lockesburg; Vice-president, B. E. Hendrix, Gillham, and Secretary-Treasurer, I. G. Jones, DeQueen, re-elected. Dr. C. M. Phillips, DeQueen, was elected to membership.

The Crawford County Medical Society met in Van Buren, December 19th, with the following members present: Dibrell, Kirksey, Bruce, Galloway, Grant and Kirkland. A fee schedule, to be posted in each member's office, was accepted. Officers elected are: President, Odell J. Kirksey, Mulberry; Vice-President, B. B. Bruce, Alma, and Secretary-Treasurer, S. D. Kirkland, Van Buren, re-elected. Following adjournment, members and guests were present at a banquet given by Dr. Kirkland at the Webster Hotel, at which several informal talks were made. Others present at the banquet were: Drs. Dorsey and Kroek, Fort Smith; Mrs. Alberta Hamm, Van Buren, and Sylvester Kirkland, Van Buren. The next meeting will be held January 23rd and will be the annual banquet session of the society with Dr. O. J. Kirksey as essayist.

S. D. Kirkland, Secretary.

Dr. I. R. Johnson, Blytheville, is taking a three months' course in internal medicine at the New York Polyclinic.

Faulkner County Medical Society has elected the following officers: President, A. J. Glover, Guy; Vice-president, Louis H. Dunaway, Conway; Secretary-Treasurer, J. S. Westerfield, Conway; Delegate, I. N. McCollum, Conway; and alternate, J. H. Downs, Vilonia.

Obituary

DR. CHARLES E. WRIGHT, Gurdon, aged 63, died November 30, 1933, following an attack of apoplexy. He was born in Mississippi, but came to Arkansas thirty-five years ago, first practicing at Pike City for several years. He later practiced at Altheimer and Graysonia, coming to Gurdon in 1925.

DR. JOHN R. ROGERS, aged 63, died at West Helena, December 5, 1933.

Auxiliary Page

On December 5, 1933, the Auxiliary to the Ninth Councilor District Medical Society held its second bi-annual meeting in the Hotel Seville at Harrison, Arkansas.

The meeting was presided over by the president, Mrs. A. L. Carter, of Berryville, who gave proof of her ability to lead the auxiliary in her splendid address. We were fortunate enough to have with us Mrs. B. A. Rhinehart, President, Woman's Auxiliary to the Arkansas Medical Society, of Little Rock, who brought us a splendid message of encouragement and helpfulness.

Roll call was answered by health current events.

Mrs. Huntington, of Eureka Springs, gave an interesting talk on "The Medical Profession, Auxiliary and Public."

The following committees were appointed:

Mrs. Huntington, of Eureka Springs, Chairman of Education and Public Health; Mrs. A. L. Carter and Mrs. Frank Kirby, Committee on Constitution and By-Laws; Mrs. D. E. Evans, Memorial Chairman; Mrs. McCurry, of Green Forest, Committee on Hygeia.

There were seventeen members present, and thirteen paid dues for the coming year.

With Mrs. E. C. Moulton, Mrs. Pierre Redman and Mrs. J. S. Southard serving as hostesses, the December meeting of the auxiliary to the Sebastian County Medical Society was held December 11th, at the home of Mrs. Moulton.

Readings by Mrs. Roy York, Jr., and dances by Miss Gertrude Womack marked the entertainment program. Miss Maude Bryan, pianist, played the accompaniment.

Members present were Mrs. Walter Eberle, president; Mrs. D. W. Goldstein, Mrs. J. G. Eberle, Mrs. J. D. Southard, Mrs. J. C. Amis, Mrs. A. S. Chapman, Mrs. Hugh Johnson, Mrs. M. E. Foster, Mrs. J. A. Foltz, Mrs. C. S. Bungart, Mrs. S. P. Stubbs, Mrs. B. B. Bruce and Mrs. Fred Krock.

The Miller-Bowie Woman's Auxiliary met November 24th at the home of Mrs. L. H. Lanier. The fact that Mrs. Lanier had sufficiently recovered from an accident to act as hostess gave added pleasure to the occasion. Co-hostesses were: Mrs. H. R. Webster, Mrs. T. F. Kittrell, Mrs. P. H. Phillips and Mrs. Preston Hunt.

Mrs. C. E. Kitchens, president, presided over the business session, in which reports were given of the meeting of the auxiliary to the Southern Medical Association.

Mrs. L. J. Kosminsky, as program leader, gave a most interesting talk on the subject of "A Visit to the World's Fair." Others taking part in the program were: Mrs. Collom, Mrs. Parsons, Mrs. Kittrell, Mrs. Collom, Jr., and Mrs. Decker Smith.

Some unique reasons for the existence of the *Maine Medical Journal* are given in the following extracts from its October issue:

"All writings have as their functions the recording and communication of thought and experiences, and unless a state membership can by any stretch of imagination declare itself sufficiently sterile in thought and experiences, no one can question the value of their recording and their intercommunications.

"A true criticism may be made, to the effect that too few of our members are not sufficiently articulate and lack the experience in medical writings. This argument is a most powerful one favoring the maintenance of a journal towards the development of that highly-prized and valued art.

"To amalgamate with any other periodical is too facile a course and will lead to over stagnation. By virtue of our own Journal only can our membership be stimulated to develop the art and science of medical writing.

"The problem is primarily one of self-education and stimulation toward the development of a talent undoubtedly present, though latent, among our members in the art of creative medical expression. The experiences of a fellow practitioner in this State are of more interest to us than the experiences of men elsewhere.

"Our State membership typifies the general practitioner, whom we are again beginning to appreciate as forming the bed-rock of medical practice. Ours is the opportunity and duty to further that recognition by transplanting his experiences and incorporating them into the much-needed and well-merited place in medical literature. Our Journal is the instrument towards its development and perfection."

FEDERAL MEDICAL RELIEF AND EMPLOYEES' COMPENSATION

A new phase of governmental entrance into the practice of medicine has developed by a gradual evolution. First came payment for medical services, but not for hospital services, for destitute unemployed persons, by the Federal government, through State relief administrations. Next, destitute unemployed persons were put to work, on State payrolls, through grants of Federal money, at wages assumed to be sufficient to enable them to provide medical and hospital services for themselves and their dependents. Now these employed men, estimated at two million in number, are transferred to Federal payrolls—and two million more men will be added. The wages are regarded as sufficient to enable the workers to live in decency and comfort, yet they receive also the medical and hospital benefits conferred on Federal employees by the United States Employees' Compensation Act of 1916, for diseases and injuries arising out of the performance of duty.

The Federal Emergency Relief Act, approved May 12, 1933, created the Federal Emergency Relief Administration, charged with the duty of making grants to the several States to aid in meeting the costs of furnishing relief and work relief and in relieving the hardship and suffering caused by unemployment. By the National Industrial Recovery Act, approved June 16, 1933, a Federal Emergency Administration of Public Works was authorized to prepare a comprehensive program of public works, including projects of the character theretofore constructed or carried on either directly by public authority or with public aid, to serve the interests of the general public and, with a view to increasing employment, quickly to construct, finance or aid in the construction or financing of any public works project included in the program thus prepared. Because of the magnitude and the nature of the task assigned to the Federal Emergency Relief Administration of Public Works, unexpected delay occurred in putting to work, for the purpose of increasing employment, the money that had been provided for that purpose. The President, therefore, November 7, created the Federal Civil Works Administration and appointed Harry L. Hopkins as Federal Civil Works Administrator. Mr. Hopkins occupies also the position of Federal Emergency Relief Administrator. To the newly created Federal Civil Works Administration the Board of the Federal Emergency Administration of Public works allocated from public works funds $400,000,000, to enable it to provide regular work on public works, at regular wages, for unemployed persons able and willing to work. Employees under this plan are to be hired by State and local civil works administrations set up by the administrator as Federal agencies, without investigations into the financial status of the persons employed, in an effort to meet the needs of the many destitute unemployed men and women who are willing and eager to work but who are not willing to have their names entered on relief rolls.

The four million men and women hired by the Federal Civil Works Administration are to be employed on projects of a character heretofore carried on by public authority or with public aid, to serve the interests of the general public. The projects undertaken must be of such a character as to be socially and economically desirable and must be susceptible of being undertaken quickly. They are described by Public Works Administrator Ickes as projects on the borderline of public works. Among the projects suggested are the construction of parks and play grounds, the repairing of roads, the building of feeder roads, the extending of sewer systems and water mains, and general activities in the field of sanitation, exclusive of such work as collecting garbage, cleaning streets, removing snow and cleaning parks. While the work is to be decentralized as far as practicable, the agencies, State and local, through which it is undertaken are to be regarded as Federal agencies, and the money used for the work, a part of a Federal appropriation, is to be disbursed by Federal officers. The money used in any State is not a grant to the State, but, in determining the amount that is to be expended in any State, a formula is to be employed that takes into consideration the population of the State and the number of persons on the relief rolls. The expenditure of this appropriation within a State will not prevent the allocation of Federal funds to that State for direct relief.

Wage rates are to vary. No maximum rates are fixed. The minimum rate for unskilled labor in the South is 40 cents an hour and in the North 50 cents an hour. In the South, skilled labor is to receive not less than $1 an hour, and in the North not less than $1.20. Rates of pay must in any event be such as will, with a thirty hour week, enable an employee to live in decency and comfort. These wages, it is assumed, will enable every employee to pay for such medical service as may be needed by him and those dependent on him. If, however, an employee because of the stress of circumstances is unable to do so, he may apply to the State or local emergency relief administration for aid, including medical services. Since employees on the rolls of State and local civil works administrations are hired by and through Federal agencies and paid from a Federal appropriation, they are within the purview of the Federal Employees' Compensation Act and are entitled to medical and hospital services at government expense if they are injured or develop disease in the course of their employment. The administration of that act as it applies to these employees is under the United States Employees' Compensation Commission and the rules applicable to compensation for Federal employees generally are applicable with but slight modifications to employees in the rolls of the Federal Civil Works Administration.

Employees are entitled to treatment for only such injuries as they sustain in the performance of duty and for occupational diseases. Diseases that do not show a direct causal relationship to the employee's work, and injuries not sustained in the performance of duty, do not entitle the employee to medical and hospital treatment at public expense. The fact that a disease develops while an employee is engaged on a civil works project is not of itself sufficient to entitle him to treatment. If there is doubt as to whether the disability of an employee is due to an injury sustained in the performance of duty or to disease contracted in that manner, the local civil works administrator is to send the disabled employee to a United States medical officer or to a designated physician, with a request for treatment, and is to take immediate steps to determine the origin of the disability. Reasonable medical, surgical and hospital services and supplies are to be provided, and such transportation as is necessary to that end. Government regulations contemplate treatment at medical establishments maintained by the Federal government. Where

adequate Federal medical facilities are not available, other public medical facilities, State, county or municipal, may be utilized. The United States Employees' Compensation Commission has designated, too, some four thousand physicians to render medical treatment where no government establishments are available. Where either government medical facilities or such designated physicians are available, they must be employed. Where they are not, local civil works administrators may arrange for medical care by such reputable physicians as will agree to charge only stipulated fees. Physicians designated by the Federal Employees' Compensation Commission and private physicians and hospitals specially employed are to be paid fees not in excess of those charged patients in the same income class as the injured person. Osteopaths and chiropractors may be employed only when recommended by the government or by designated physicians. The Federal Employees' Compensation Commission keeps postmasters and the larger establishments of the Federal government informed concerning government and designated medical facilities and any official or employee can obtain information concerning them from the local postmaster.

An employee may refuse the medical or hospital treatment proffered by the government, but if he does so the government will not pay for the medical or hospital services that he provides for himself. An employee treated by his private physician or in a private hospital selected by him must for an employee to obtain such a request, a medical officer or to an officially designated physician, for examination to determine whether or not his disability continues. An injured or ill employee seeking treatment at government expense must leave with the physician or hospital from whom he receives service a written request from the local civil works administrator that such service be rendered, and a blank voucher. Bills for service cannot be paid in the absence of such authority. If it has been impracticable, however, for a nemployee to obtain such a request, a medical officer or a designated physician may give temporary treatment, provided proper authorization be obtained from the employee's official superior within forty-eight hours. Unless such authorization is obtained, the medical officer or designated physician has no authority to give further treatment at public expense. Vouchers for services, accompanied by a copy of the official request for them, are to be transmitted to the Federal Employees' Compensation Commission for settlement. A separate voucher is to be submitted for each employee treated, on the form provided for that purpose. Vouchers should be verified by the signature of the employee whenever practicable, and in all cases they must be certified by the local works administrator.

Physicians desiring to have their names placed on the list of physicians authorized by the Federal Employees' Compensation Commission to treat Federal employees suffering from injuries or diseases caused by the discharge of their duties, in places where United States hospitals and dispensaries are not available or are inadequate, should make application to the Federal Employees' Compensation Commission, at Washington, D. C. It has not been the policy of the Commission to designate an indefinite number of such physicians in any one locality, but changes are made necessary from time to time by deaths, resignations, and changes of physicians' residences, and with the present increase in the number of Federal employees entitled to treatment, an increase in the number of designated physicians seems inevitable. It will be well, however, for any physician who contemplates accepting any such designation to learn the requirements of the commission with reference to examinations, treatment, records and reports, and to learn the rates of compensation allowed by the commission in his community, before he does so.

—Jour. A. M. A., December 23, 1933.

Supplementary to the above article, The Journal of the American Medical Association states in the December 30th issue that "apparently employees of the Civil Works Administration have the right to choose their own physicians." This came as a reply to protests to the President and to The United States Employees Compensation Commission and indicated that all reputable physicians willing to give treatment at reasonable rates may be used for the care of employees of the Civil Works Administration. Local administrators have been notified to advise the local medical profession accordingly and to make arrangements to permit reputable private physicians to participate in rendering this service in places where government medical officers and hospitals are not available and reasonably accessible.

NEW PRODUCT FOR DIPHTHERIA IMMUNIZATION

The Squibb Laboratories announce the availability of Refined Diphtheria Toxoid Alum Precipitated with the featured advantage that one injection is sufficient for the immunization of the majority of children against diphtheria. The efficacy of the preparation in immunizing against diphtheria is believed to be due to the fact that the alum precipitated toxin, since it is relatively insoluble, is more slowly absorbed and remains in the body sufficiently long to produce adequately protective amounts of antitoxin.

One injection of Alum Precipitated Toxoid is reported to be as effective as two or three injections of ordinary unprecipitated toxoid, and is also said to produce a greater number of negative Schick Tests, that is, a higher percentage of immune individuals. These features make Alum Precipitated Toxoid of particular value in public health work, for two or three times as many persons may be immunized with no more effort nor time on the part of the public health worker. It also makes it easier for the family physician to follow the advocated procedure of immunizing every infant, at whose birth he has officiated, at six months of age.

Squibb Refined Diphtheria Toxoid Alum Precipitated is prepared according to the method reported by the Alabama Board of Health for a single-dose treatment. It is marketed in 0.5 cc. vials for immunization of one person, and in 5 cc. vials containing sufficient material for the immunization of ten individuals.

Special Article

FIRST AID IN POISONING

OSCAR W. BETHEA, M. D., New Orleans

The following instructions are abstracted from an article by the author appearing in the December, 1933 issue of International Medical Digest, and are published here by special permission of the publishers, W. F. Prior Company, Hagerstown, Maryland.

INORGANIC ACIDS (SULPHURIC, NITRIC, HYDROCHLORIC, Etc.): Give magnesium oxide, one-half ounce, or milk of magnesia, four fluid ounces. If patient is vomiting, keep repeating until the stomach has been thoroughly cleansed; if not vomiting, the stomach should be carefully washed, using a small tube. Give demulcent drinks as cream or olive oil. Combat pain and shock if necessary.

CAUSTIC ALKALIS (Lye, Etc.): Wash out stomach (extreme caution) with diluted vinegar or 1 per cent acetic acid, using a small tube. Give demulcent drinks, as albumen water, cream or olive oil. Treat external burns with vinegar or diluted acetic acid, and apply cold cream.

ARSENIC (including Ant Poison): Wash out stomach with "arsenic antidote" (freshly precipitated hydrated oxide of iron with magnesia). Leave 2 fluid ounces of this in the stomach. Give intravenously 10 cc. of a 5 per cent solution of sodium thiosulphate. If ant poison has been taken, give a cup of strong tea also. Keep body warm.

HYPNOTICS (Barbital, Luminal, Chloral, Etc.): Wash out stomach with sodium bicarbonate solution. Introduce through tube a cup of coffee and 2 fluidrachms of aromatic spirit of ammonia. Hypodermic of seven and one-fourth grains caffeine sodio-benzoate. Keep patient awake.

IODINE: Wash out stomach with starch water—cooked if obtainable. Give 2 fluidrachms of aromatic spirit of ammonia in water.

MERCURY (Corrosive sublimate-Bichloride Tablets): Wash out stomach with the white of eggs mixed with water. Leave some of this in the stomach. Give by mouth 30 grains sodium thiosulphate dissolved in water. Give intravenously 10 cc. of a 5 per cent solution of sodium thiosulphate. Treat pain as indicated—1 grain codeine by hypodermic if necessary.

NUX VOMICA (Strychnine): Give intravenously seven and one-half grains of a soluble barbitrate, as soluble barbital or sodium amytal. Repeat as needed. May use chloral hydrate and sodium bromide by rectum. Wash out stomach with 1:3,000 solution of potassium permanganate. Leave pint of this in the stomach. Keep patient quiet.

OPIUM (Morphine and Codeine): Wash out stomach with 1:3,000 potassium permanganate solution (2½ grains to the pint). Leave pint of this in the stomach. Give 7½ grains caffeine sodio-benzoate by hypodermic. Repeat in thirty minutes. After washing out stomach, give a cup of strong tea and 2 fluidrachms of aromatic spirit of ammonia. Keep patient awake.

PHENOL (also Lysol and related preparations): Wash out stomach with 20 per cent solution of alcohol, then with sodium bicarbonate solution. Give one-half ounce of sodium sulphate in saturated solution. Give demulcent drinks. Put to bed. Keep body warm. Combat shock, if indicated. Sponge external burns with alcohol solution and apply cold cream.

WOOD ALCOHOL: Wash out stomach with a 2 per cent solution of sodium bicarbonate. Keep quiet. Treat symptomatically.

In recent years the Baptist Hospital has admitted 33 cases with but three deaths, indicating that this sheet has met most of the requirements for this class of service. The scope of these instructions is, of course, limited to the preliminary treatment.

INORGANIC ACIDS: Bastedo has called attention to the danger of alkaline agents that will liberate a gas (sodium bicarbonate), as rupture of a damaged stomach wall may take place. The small, soft Levin nasal tube should be employed as a stomach tube.

CAUSTIC ALKALIS: The after results are often disastrous. Black has emphasized the necessity of withholding all food by mouth for about 48 hours. This same precaution applies to treatment of poisoning by the inorganic acids.

ARSENIC: Poisoning with this agent has become more frequent since its common use as an insecticide. The official arsenic antidote is still largely used though its value is being seriously questioned, Solis-Cohen being doubtful if there is any chemical antidote of value in arsenic poisoning.

HYPNOTICS: The bladder should be watched for retention. Purgatives, colon irrigations and large amounts of water by mouth or needle are almost uniformly advised.

IODINE: This may occasion considerable inconvenience but is not materially dangerous. 43 cases have been treated at Charity Hospital in the last two years with no deaths.

MERCURY: Due to the rapid absorption of these salts, particularly that of the bichloride, much depends upon the promptness with which treatment is instituted. Other factors materially affecting prognosis are the presence or absence of food in the stomach, particularly albuminous material; the promptness with which emesis takes place or the stomach is emptied, and the amount of the drug taken.

NUX VOMICA: The prognosis is influenced by many factors, such as the amount taken; whether or not there was food in the stomach that would delay absorption, and the promptness of treatment. A source of strychnine poisoning that should not be overlooked, particularly in children, is the laxative pills, many of which contain as much as 1-60 grain of strychnine.

OPIUM: Caffeine is still regarded as the ideal physiologic antidote. The necessity for repeated gastric lavage should be borne in mind.

WOOD ALCOHOL: The immediate necessity from the standpoint of first aid is emptying the stomach by lavage with an alkaline solution.

CYANIDES: The use of 50 cc. of a 1 per cent solution of methylene blue intravenously has been recommended by Geiger. Bastedo advocates ferrous sulphate as a chemical antidote.

It is understood, of course, that the main considerations in first aid for poisoning cases are prompt attention, removing the poison, treating shock, preventing acidosis and doing those things which will minimize late unfavorable results.

Book Reviews

The Surgical Clinics of North America. (Issued serially, one number every other month.) Volume 13, No. 5 (Chicago Number, October, 1933). Octavo of 254 pages with 93 illustrations. Per clinic year, February, 1933 to December, 1933. Paper, $12.00; Cloth, $16.00 net. Philadelphia and London; W. B. Saunders Company, 1933.

The increased attention given to children's surgery is noted in this volume. It contains a very interesting and instructive symposium on surgical conditions in infancy and childhood. This symposium alone is well worth the attention of all men doing any surgery within its scope. In addition there are many other interesting and instructive clinics, as, the detailed treatment of varicose ulcer and veins; possibilities of surgical therapy in jejunal ulcer; every-day knee injuries, and many others.

Growth and Development of the Child—Part III. Nutrition. Report of the Committee on Growth and Development, Kenneth D. Blackfan, M. D., Chairman. White House Conference on Child Health and Protection. New York: The Century Company, 519 pages, $4.00.

This volume is an appraisal of the controversial problem of normal growth and development by thirty-one leading pediatricians and physiologists and gives standards for the normal. The average diet in this country is studied and each component of it is then analyzed. The amounts of each which are required for normal nutrition are given. The vitamins are comprehensively discussed as are the diseases produced by their deficiency. The chapters on the choice of foods and their preparation and the feeding habits of children are most instructive. References to the literature are appended to each chapter in an exhaustive fashion.

Migraine. Diagnosis and Treatment. By Ray M. Balyeat, M. A., M. D., F. A. C. P., Associate Professor of Medicine and Lecturer on Diseases Due to Allergy, University of Oklahoma Medical Schools; Chief of the Allergy Clinic, University Hospital, etc. Cloth, 242 pages, 26 illustrations, 5 of which are in color. Price, $3.00. J. B. Lippincott Company, Philadelphia, Montreal and London.

This is a book that we are all interested in as it has been shown that in the United States, approximatey 7 per cent of the population suffers, at some time in life, from migraine. The problem of migraine is by no means solved but the treatment by dietary manipulation based upon specific sensitization is probably the most satisfactory approach. The awakened interest in the condition during the past five years is largely due to the discovery that it is interchangeable in linkage with allergic diseases, and like them, it is an expression of human hypersensitiveness. This book covers the definition of migraine, the historic consideration, the hereditary factor, etiology, symptomatology, pathology and treatment of both the non-allergic and allergic types. Of special interest is the report of 53 cases of allergic headache, many of which were migraine and others of the non-migraine type. Practically all the problems encountered in the diagnosis and treatment of the migraine syndrome are covered in this volume.

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Original Article

END RESULTS IN SOME UNUSUAL FRACTURES*

W. F. SMITH, M. D., Little Rock

More grief and adverse criticism can follow in the wake of a delayed or non-union in a fracture, than in almost any other condition. There is nearly always deformity and loss of function. A normal period of disability with restoration of function and countour is greatly desired, especially so in industrial cases, to avoid the economic loss and possible damage suits.

To standardize the treatment of fractures is just as impossible as it would be to standardize the causes of fractures. There are, however, certain fundamentals in the treatment of all fractures which must be followed if successful results be obtained.

In this brief review there is no attempt to present anything new in the way of etiology or treatment of non- or delayed union in fractures. It is merely a review of some of the accepted theories as to the process of normal union, factors which may prevent or delay such union, with the presentation of a few cases which show some good results and others in which the results are not all that could be desired.

In the oration on fractures presented before the Clinical Congress of Surgeons in New York in October, 1931, William Darrach (1) stated that in fractures the injury is neither limited to the bone nor limited to those injuries occurring at the time of the accident. Rough handling immediately following injury and undue reduction may greatly injure nerves, vessels and the soft parts.

Each fracture presents individual characteristics. No routine treatment should be followed. Gentleness in manipulation is essential. The necessity of immobilization and the advisability of early resumption of functional activity often clash. The successful treatment of the fracture depends on the proper adjustment of these risks.

Many times these days a surgeon does not have complete control of his patient. Necessary procedures will not be consented to or will be postponed by the patient or his people at a time when an intelligent co-operation between the patient and surgeon should exist. Much also depends on the patient's physical condition as regards the healing and reparative process.

As described by Albee (2), bone is a connective tissue containing the osteoblasts, which are specialized cells capable of furnishing certain lime salts at the site of the fracture. Plus the deposit of the lime salts to solidify the union, there is in this union the same mechanism as in the reunion of the soft tissues in their healing process.

Kolandy (3) in his experimental study on the effect of endocrine disturbances on non-union of fractures states that his experiments prove that endocrine disturbances play a prominent role in the regenerative process of bone repair, producing a suppression of the healing of fractures. It is thought that the calcium metabolism is thereby disturbed. In our cases the administration of various gland products has produced no appreciable effect. Syphilis has been a factor of little importance in cases of delayed union.

Estes (4) divides delayed and non-union into three general classes:

I. General causes:
- a. Nervous diseases.
- b. Tabes and paresis.
- c. Constitutional gout.
- d. Diabetes.
- e. Osteomalacia.
- f. Chronic nephritis.
- g. General infectious diseases, including syphilis.

*Read before the Fifty-eighth Annual Session of the Arkansas Medical Society, held at Hot Springs National Park, May 2, 3, 4, 1933.

II. Local causes:

a. Mechanical interference.
   1. Separation of fragments.
   2. Interposition of soft parts.
   3. Incomplete immobilization after reduction.

b. Deficient blood supply, severe trauma to soft tissues adjacent to fracture, severe trauma to bone and periosteum.

c. Bone lesions:
   1. Osteomyelitis.
   2. Necrosis.
   3. Tumors, primary or secondary, with pathological fractures.

d. Infection of soft tissues.

e. Nerve injury.

III. The treatment of the fracture itself.

There is a marked tendency to delayed union in compound fractures; this tendency is increased in comminuted cases.

Osteomyelitis delays the time of union. It is rarely acute, appears slowly and results from necrosis of bone which has formed a sequestrum. This latter condition is a very common cause of non- or delayed union. Cases of this kind will be presented.

Most likely localities for delayed or non-union are the neck of the femur, upper part of the humerus and the lower portion of the tibia, this being probably due to lack of soft parts over the bone (5).

In presenting an interesting case of non-union of the tibia Alfred E. Gallant (6) of Los Angeles gives us the causes: first, a compound fracture with infection and subsequent drainage; second, repeated attempts at eradication of the osteomyelitis, which either followed the compound fracture or the plating; third, an infection probably following the bone grafting operation; fourth, the failure of the bone graft to take, with a resultant pseudo-arthrosis; fifth, improper splintage, causing pseudo-arthrosis.

Henderson (7) states that it is often impossible to state why union does not take place in any given case.

Too wide a separation of the fragments, a portion of a muscle intervening, or a detached piece of bone between the fractured ends will prevent bony union. Too frequent manipulation also tends to produce a pseudo-arthrosis (8).

Dealing with fractures that will not heal Kappis (9) speaks of the difficulty in telling when delayed healing ends and pseudo-arthrosis begins, the former needing immobilization and rest and the latter an operation.

Until, and only when skeletal, body and other methods of traction and manipulation have failed should the open reduction be resorted to. In the open reduction it is well to remember that the very young and the elderly persons are bad subjects for bone grafting. Infection or a sinus is another contra-indication.

Autogenous grafts are preferred. One of the cases presented will show however an exogenous intra-medullary bone graft that was successful. This method is not advocated.

Albee's sliding inlay graft, Campbell's massive inlay graft and Henderson's massive inlay graft are the ones of choice. Mock (10) states that whichever method, bone graft, osteo-periosteal or pure periosteal transplant is used, more rapid and better results will be obtained if a large piece of periosteum is employed to surround most of the shaft at the site of the defect.

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Original Article

WHITHER ARE WE DRIFTING?*

S. W. Douglas, M. D., Eudora

Our problems of the near future are so pressing that they should have our frank discussion. Medical progress, public health, the welfare of the patient and the welfare of the physician seem to be in a transitory stage, and care must be taken, I think, to avoid an impending calamity. The only way to judge the future is by the past. The only way to improve is to profit by our mistakes and keep our eyes to the right.

More progress has been made in medicine in the last hundred years than in all former time. Only one class of human knowledge is anything like a near competitor, and that is mechanics. The system of medicine that has developed this wonderful progress is said to be in jeopardy. Human happiness is so dependent on health that we must ever guard the sacred trust of preventing and relieving the scourges of mankind. Progress in relieving human distress has always, in the past, and must in the future, come from the medical profession. Society, both social and religious, has stood squarely in the way of medical progress. Society, therefore, cannot be depended upon to guide us in any emergency.

I shall proceed to point out the conditions that influence our future. Of course, it is necessary in the future to strive even more arduously than in the past to improve the quality of medical service. In other words, the world is going to demand better trained physicians. This burden lies largely upon the medical colleges. It is confidentially believed that our instructors should have the courage to delete from the schools the pupils who are manifestly incompetent or unsuited for the profession. The drift in recent years has been to produce many specialists with fewer, and probably inferior, general practitioners. When we consider that 80 per cent of all medical service is rendered by the general practitioner, it becomes evident that the tendency to specialization is entirely a wrong basis for instruction. If the schools would train more highly competent general men, specialists would have materially less to do. It is thought that recent teaching has shown too much of a tendency to depend upon laboratory methods. The laboratory, of course, has great value, but it cannot at all compete with the well trained senses of the thoughtful physician. The schools should earnestly train these God-given senses in securing knowledge, valuable in the interest of the patient. The type of men who have made the American medical profession distinctive are those who have had intensive training in the use of their natural senses.

We have heard it stated often that progress must come from within the profession. This needs no argument for proof. But to function effectually, we must be thoroughly organized. The number of physicians in the United States is near 150,000. Of this number, only 84,000 are members of the American Medical Association, or slightly over half. The number of physicians in Arkansas is approximately 2,100. The Arkansas Medical Society has 954 members, which is definitely less than half of the total in the State. These figures point out clearly that we need an intensive campaign for membership, that we may have coordination in moulding our future progress. If we cannot show a solid front of organization, if we cannot coordinate our efforts, if we cannot agree among ourselves on policies of action, we may expect outside influences to attempt to control them for us.

It is certain that many of our troubles would disappear if people knew what medicine has done for health and happiness. On this floor three years ago, I moved that our dues be increased to five dollars that this society might enlarge its publicity program. The problem of cults, which so much disturb us, will be permanently solved when the people know the value of medical service, because cults thrive on ignorance, and may I add, on the mistakes that physicians make.

When we get it across to the people that medical service has increased the span of life in the last 75 years from 33 to 59 years; when they know that 75 years ago, one-fourth of the people born died before the age of five, but now live to be twenty-five; when they learn that there will be no more plagues of cholera, smallpox, typhoid, bubonic plague, diph-

*Read before the Fifty-eighth Annual Session of the Arkansas Medical Society, held at Hot Springs National Park, May 2, 3, 4, 1933.

theria, yellow fever and other deadly diseases; when they know that mortality in the delta regions from malaria has been reduced to almost the vanishing point; and that the tropics have been made habitable, now feeding and enriching the world; when they know all this and much more that has been done; I say that many of our troubles will vanish into thin air. The cost of all this is insignificant as compared to the benefits to humanity. The medical profession has nearly doubled the span of human life in the last hundred years, yet we hear a continuous wail about the high cost of medical care.

I feel convinced that it will cost us less to get this information to the people than any other way of stabilizing our work, and it appears the only rational way of doing it. Let me repeat that medical cults, patent medicines, drug store prescribing and dissatisfaction with medical service, all thrive on ignorance. We owe the laity this information as a debt of gratitude for the support given us. We should urge that the child be taught the rules of health in early school life. The object of all education is to train the individual to adjust himself to his environment, that comfort and happiness may be obtained. Health is the greatest single factor in human happiness. Then it follows that the study of health problems in our schools should have priority over all other studies. It should not require any argument to convince educators that training in prenatal care is vastly more important than is French or Latin. There is no information that is more important to a young mother than to know how to care for her child in illness, nurse it back to health and rear a normal child. As a factor in human happiness, it is folly to compare this information with higher mathematics. Yet, infant care is never taught in our schools. We will be criticised for believing and urging that sex education should be taught to our youth as an important factor to aid them in meeting life's problems. The profession, in planning its future, should seriously consider this responsibility to our people.

In the near future, the laws of the State will surely be profoundly influenced by medicine. For a number of years, I have advocated the sterilization of every felon. Let sterilization be part of the sentence of everyone sent to the penitentiary. The knowledge of this would be potent in deterring to crime. It would prevent the criminal from begetting more of his kind to curse society and burden the State. It is well known that criminality is inherited, and that criminals are totally incompetent to train a child to useful citizenship. In addition to the sterilization of criminals, the burden to the State and society can be greatly reduced by the sterilization of idiots, morons, epileptics and the insane.

Since the report of the Committee on the Cost of Medical Care, there has been a great deal of discussion of the economic and financial status of medicine. In our community, medical care for the last three years has been very little expense to anyone except the physician. The doctors have contributed far more, not only in money, but also in the service of their medical skill, than has come from all other classes, including the patients. I mean simply that our losses have been far greater than our profits. This unequal burden of service and expense has caused a financial drift of the physician to the bow wows.

The fundamentals upon which the future of medicine must stand or fall are as follows:

1. The welfare of the sick must be the first consideration of any commendable form of medical practice.

2. Insofar as is practicable, the patient should have freedom of choice of physician and hospital.

3. The quality of medical service should not be jeopardized by either inadequate compensation or excessive number of patients.

4. Solicitation of patients is reprehensible. It is undignified, commercializes the practice of medicine and introduces an unfair form of competition between physicians.

5. The care of the indigent sick, the same as the indigent hungry, is the duty of the State and the community and not the duty of the physician.

6. The preservation of public health is a governmental function and should be coordinated with and not confused with curative medicine.

7. The practice of curative medicine is a prerogative of the medical profession and not a governmental or community function, excepting the indigent and wards of the State.

A violation of these principles will destroy the sacred relation of the patient to the physician and lower the standard of efficiency

to such an extent that our progress will be retarded for many years. It seems to be forgotten by the laity and its leaders that the medical profession has certain inalienable rights in its service to humanity. Among these is the freedom of opportunity to develop their individual capacities, to be paid according to the value of their services, to be permitted free and fair competition and to control their own affairs. Yet it should be borne in mind that scientific medicine, unaided, has a well-nigh impossible work before it. If it is to accomplish the final banishment of disease, it must have the sympathetic cooperation and encouragement of the public in whose interest we continually labor.

Our present system of practice, though defective in many ways, stands with a continuous record of never failing service, and has always stood the test of any crisis, meeting the demands made upon it and rendering the service expected. Its proper function at all times is necessary to the very existence of the people. Shall we sit idly by and witness the destruction of this system? Shall we console ourselves that better times are just around the corner and be supinely at ease?

Public demand is going to force action, and public demand will be dominated by public opinion. It is the duty of organized medicine to mould that public opinion in lines with what we know is proper and best. In this instance, it calls for a plan of action, a program with every county society, every State society and the national organization squarely behind it. Can it be that the present and the near future will find us continuing to drift and taking no profit from experience?

Good friends, let our conduct prove that the call has come to men who have large hearts, however narrowed their homes may be; who have open hands, however empty their purses. In this time of stress we have nothing but manhood, strong in its faith of our noble profession. Our past proves that the ideals of the profession are so high that it can be confidentially trusted to do all in its power to put an end to the ills of suffering humanity. It is with pride that we challenge any other profession for a comparison in ideals and unselfish code of ethics.

We must, therefore, conclude that the remedy for our problems lies within the profession and not from outside influences. This is an opportune moment and no conscientious physician should feel an indifference to the issue of events. We have got to stick together or we are going to get stuck separately.

We feel that it is the duty of our leaders in the American Medical Association to lead the way out of this trouble. They have already made noteworthy progress. The Arkansas Medical Society should certainly do no less than pledge its unstinted support to these worthy leaders of the profession.

DISCUSSION

DR. E. H. HUNT, Clarksville: I suppose I have overlooked a very important item in the discussions of these papers. It has gotten to be a habit to write a discussion of the paper which would be longer than the essay itself. I have always been under the impression that the discussion of a paper was to be a spontaneous and extemporaneous discussion of one or two points which may or may not have appealed to the discusser.

I shall not detain you over thirty or forty minutes discussing this admirable paper by Dr. Douglas. He has covered the universe, covered so many important points that we could be here up to the middle of the night discussing the different phases. Some of the things that he brought out I believe we should have taught in the schools, more particularly sex hygiene and sex life. There are six public schools in New York City that are giving a course in sex matters while we in Arkansas are not discussing it as freely as the people down East.

I am heartily in accord with the remarks made about the commercialism of the medical profession and the drumming of patients. Hot Springs had this to contend with for years, and we are all having more or less of it to contend with. It is, as the doctor said, reprehensible, and the remedy surely lies within the medical profession itself.

I agree heartily with his remarks about overnight specialists. I think the country has been overrun with them. I believe we need more family physicians. If these younger fellows will go out and make day and night calls as so many of us have to do during these hard times they will enjoy the fresh air.

I have enjoyed Dr. Douglas' paper very much. I shall not bother you with a longer discussion.

Original Article

LYMPHOGRANULOMA INGUINALE: PRELIMINARY REPORT OF TWO CASES FROM ARKANSAS

D. W. Goldstein, M. D., and
L. T. Byars, M. D., Fort Smith

Recently there has been a number of reports on lymphogranuloma inguinale from various parts of the United States. In a review of the literature, I am unable to find a report of a case in Arkansas. Having proved two cases of this disease in Arkansas is the reason for this report.

Lymphogranuloma inguinale (the fourth venereal disease) was first recognized as a clinical entity in Europe in 1913. Durand-Nicolas and Favre pointed out the condition and indicated its probable venereal nature. They chose the name "Subacute inguinal lymphogranulomatosis." DeWolf and VanCleve with Cole (1) chose the shorter name, "Lymphogranuloma Inguinale." A report by Dr. H. N. Cole (2) at the Milwaukee session of the American Medical Association on lymphogranuloma inguinale, and also a visit with Doctor Max Wien, at Chicago, where one of the writers (D. W. G.) observed a number of cases being treated by Doctors Max Wien and Minnie Perlstein, stimulated our search for a case in Arkansas.

The clinical course will not be discussed, for in the last few years there has been much in the literature, Cole (2), Wien (4), Perlstein, DeWolf and VanCleve (1), Zakon (5) and others, have written exhaustively on this condition.

Case Reports

Patient, I. K., negro, aged 26, presented himself at the clinic for examination on July 27, 1933. At this time he had enlarged inguinal glands. He stated that one week previously he had noticed soreness of the glands, also enlargement on both sides. At this time a sore was noticed on the penis. He had last intercourse about one week previously. He had several chills followed by fever, also complained of weakness and loss of weight; no sore throat or headache; no eruption on body. He also had a urethral discharge.

Examination

Patient showed bilateral enlargement of the inguinal glands of the superficial chain. There was greater involvement of the right side; no fluctuation was present. An ulcer was in the sulci of the glans penis, flat, but slightly indurated. On the shaft of the penis there were two areas of a nodular enlargement, not unlike a sebaceous cyst.

The urethral discharge was negative for gonococci, but many bacteria were found. Intradermal test to Frei antigen was negative. Kahn and Kolmer were positive 4 plus; no dark field was made.

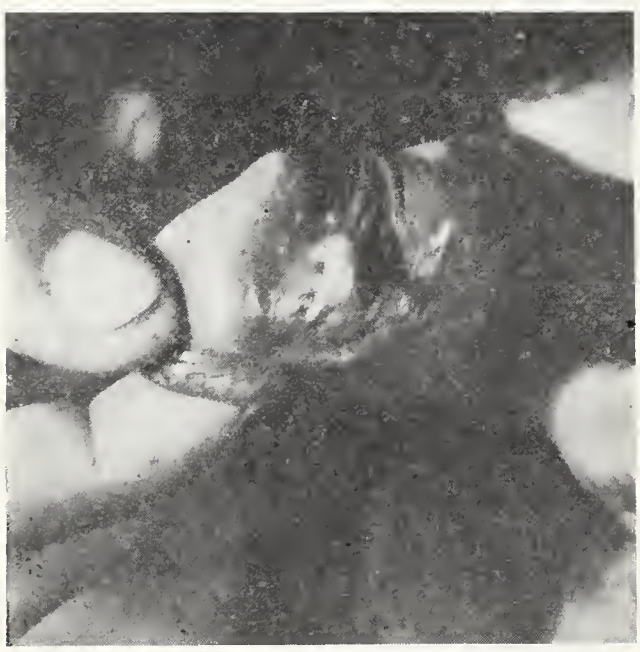

Figure 1. Lymphogranulomatous bubo with sinus formation. (Case 1.)

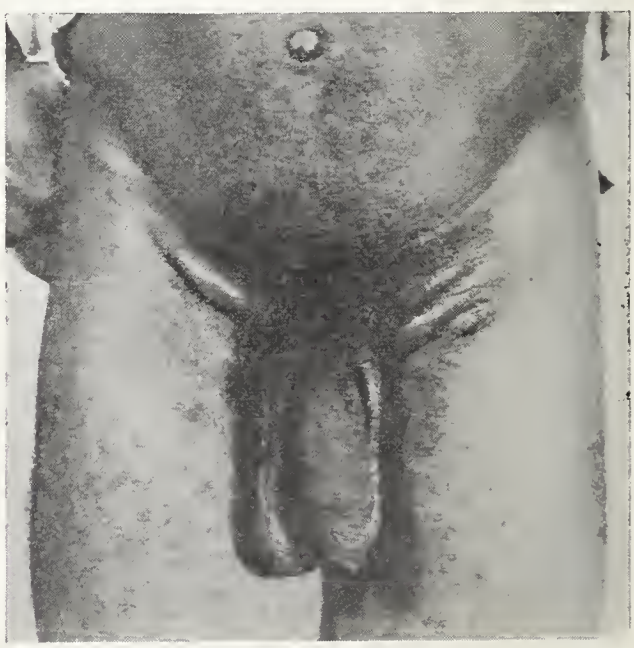

Figure 2. Suppurating nodular lymphitis of the penis accompanying a lymphogranulomatous bubo. (Case 1.)

Thinking this was a luetic condition associated with lymphogranuloma inguinale, the patient was given neoarsphenamin and bismuth salicylate. One week after treatment began the glands were soft and fluctuation was present. The pus was aspirated and a Frei antigen was made.

Luetic treatment was given for five weeks. A total of 3 grams of neoarsphenamin and 5 grains of bismuth salicylate had been given. There was slight improvement in the ulcer and a sinus had formed over the inguinal gland on the right side. The general condition of patient had improved.

The Frei antigen made from pus from this patient had been sent to Doctor Max Wien, of Chicago, to try on known cases of lymphogranuloma inguinale. Doctor Wien reported that he had obtained strong positives on all cases. Patient at this time showed a positive Frei to two antigens. After receiving this report, patient was given antimony and potassium tartrate 1 per cent solution, intravenously until a total of 50 cc. of this solution was given. The patient continued to improve, although several sinuses had formed. Patient at present is receiving .1 cc. of Frei antigen every five days.

Having read a report by Nicolou and Banciu (6) reporting two cases of suppurating lymphitis of the penis accompanying a lymphogranulomatous bubo, pus was aspirated from the nodular lesion on the penis and Frei antigen was made which showed positive on known cases. Nicolou and Banciu report two cases.

Present condition of patient:

There are several sinuses over the inguinal glands. The ulcer also healed, forming a small sinus, also the nodular lesions. Patient has gained weight.

Case No. 2

J. D., aged 25, negro, male. November 30, 1933. Patient stated that two weeks ago he noticed swelling of glands in left groin, also had some soreness. Has had chills and fever; is also very weak. Has slight enlargement in right groin. Had intercourse twenty days previously; no history of sore on penis.

Examination

Enlargement of gland in right groin one-half size of orange, indurated, also slight enlargement of glands in left groin; no fluctuation; no ulcer on penis; no sore throat or eruption on body. Wassermann, Kolmer and Kahn, negative; Frei reaction positive to two antigens.

Summary

1. Two cases of lymphogranuloma inguinale from Arkansas reported.

2. Lymphogranulomatous inguinale bubo co-existing with a suppurating nodular lymphitis of the penis.

3. Both patients are negroes.

4. Case of lymphogranulomatosis associated with syphilis.

We are indebted to Doctors Max Wien and DeWolf for furnishing us with Frei antigen and to Doctor Wien for assisting us on the case through personal correspondence.

Cooper Clinic, Fort Smith, Arkansas.

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Resolutions

It is with sorrow that we, the members of Lonoke County Medical Society, have to acknowledge the passing from us to the Great Beyond of our beloved, respected and honored Dr. H. N. Street. He has been with us since his coming to Lonoke. As our acquaintance with him grew so also grew the realization of the benefits which our society derived from his faithful and unselfish work. His warm professional feeling inspired our hearts. We could depend upon his kindly, free and unselfish discussion of subjects at our meetings to be for the good of the society.

S. S. Beaty, President.

O. D. Ward, Secretary.

Personal and News Items

Drs. A. D. Cathey and D. E. White, have been elected directors of the El Dorado Kiwanis Club.

Dr. Daniel R. Hardeman, formerly of Texarkana, has opened an office at 504 Donaghey Building, Little Rock, for the practice of surgery and diagnosis.

Members of Adam Jackson Post No. 17, The American Legion, Paragould, presented Dr. W. M. Majors a car heater on December 17th in token of his services to the post.

Dr. D. W. Goldstein, Fort Smith, attended the meeting of the Mississippi Valley Dermatological Society held in Chicago, January 20th.

"Transurethral Resection of the Prostate," by H. King Wade, Hot Springs National Park, appears in the November, 1933, issue of The Mississippi Doctor.

Drs. K. W. Cosgrove and J. P. Sheppard, Little Rock, have been elected president and director, respectively, of the Little Rock Kiwanis Club.

Dr. Charles H. Lutterloh has associated himself with Dr. Euclid M. Smith for practice at 1103 Medical Arts Building, Hot Springs National Park.

Dr. J. C. Ogden, Fort Smith, attended the Mid-Winter Clinical Course of the Research Study Club of Los Angeles the last two weeks of January. Prof. Anton Elsching, of Prague, Czecho-slovakia, conducted the course.

Dr. Ewell I. Thompson, Little Rock, has been appointed consulting dermatologist to the Leo N. Levi Memorial Hospital and the Public Health Service Clinic at Hot Springs National Park.

Mississippi County Medical Society has elected the following officers: President, J. L. Tidwell, Dell; Vice-President, J. J. Polk, Kesier, and Secretary-Treasurer, F. D. Smith, Blytheville.

Dr. Harvey S. Thatcher, Little Rock, was elected Chairman of the Section on Pathology, Southern Medical Association, at the meeting held in Richmond, Virginia, in November, 1933.

At the meeting of the Arkansas State Board of Health held January 18th, the following were elected officers: J. G. Gladden, Western Grove, president; Thomas Wilson, Wynne, vice-president, and W. B. Grayson, Little Rock, Secretary.

Dr. W. B. Grayson, State Health Officer, spoke to an all-day picnic held at Batesville, January 26th by employees and supervisors of the CWA sanitation program on the subject "The Aid of the Sanitation Program in Eliminating Filth-borne Diseases."

Drs. S. C. Fulmer and M. J. Kilbury, Little Rock, addressed the fifth annual meeting of the Medical Association of the Missouri Pacific Railroad held at Memphis January 26th and 27th on "Symptoms and Signs of Heart Diseases" and "Few Manifestations of the Blood in Disease," respectively.

Cleveland County Medical Society has the honor of presenting the first 100 per cent paid-up membership roster for 1934 to the secretary's office. Officers elected for 1934 are: President, A. J. Hamilton; Vice-President, T. L. Adams and Secretary-Treasurer, W. G. Hancock, all of Rison.

Franklin County Medical Society has elected the following officers: W. H. Gibbons, president; W. C. Porter, vice-president, and Thos. Douglas, secretary-treasurer, all of Ozark. This is Dr. Douglas' thirty-ninth term as secretary-treasurer of his county society.

The perennial and unassuming secretary of Johnson County Medical Society, Earle H. Hunt, has mailed dues for all the members of that society to the State Secretary's office, giving that society second position in the full-paid column. Johnson County officers for 1934 are: President, J. S. Kolb; Vice-President, J. M. Kolb, and Secretary-Treasurer, Earle H. Hunt, all of Clarksville.

Dr. F. Walter Carruthers, of Little Rock, attended the second annual meeting of the American Academy of Orthopedic Surgeons in Chicago on January 8th, 9th and 10th. Dr. Carruthers was honored with fellowship on January 9th. The college has limited its members to four hundred, composed of bone and joint surgeons in America, Canada and other foreign countries.

THE JOURNAL
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The advertising policy of this Journal is goverued by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

Editorials

RECIPROCITY

During 1933 The Journal received approximately two thousand dollars from commercial advertisers, money spent by ethical and reputable firms to interest Arkansas physicians in ethical and reliable products. This income, the major source of the eosts of publication of The Journal, was spent, not as a complimentary gesture to the physicians of Arkansas, but because these advertisers felt that the members of the Arkansas Medical Society would become suffieiently interested in their products to use them, thereby increasing their business as manufacturers. This is proper reasoning; advertisers have the right to expect that readers of The Journal will favor them with patronage whenever possible. This costs the Arkansas physician nothing; it is simple and easy of accomplishment. The Journal feels that our advertisers should certainly be given the preference when other considerations are equal. The Journal, albeit somewhat prejudiced, feels that efforts should be made in many cases to make the considerations equal in order that benefit may aecrue to the advertiser. Journal advertisers should receive the hearty support of Arkansas physieians and Arkansas physicians should advise these firms, their representatives and dealers, that their patronage is a direct expression of appreciation for support given The Journal. Such a practice of reciprocity from fifty per cent of our membership would immediately reflect itself in our advertising columns by increase in the number of firms participating and in the amount of space used. It is even possible that The Journal could reach a stage where it would be able to earry the entire financial burden of the State society. Your duty to non-advertisers is definite; they should know that you contemplate cordial and hearty support of advertisers only. Expressions of this character from a sufficient number of our readers will convince any firm that it is well worth while to be represented in our advertising columns. Is it your desire that The Journal grow? Is it your desire that we have a larger Jour-

nal? Is it your desire that The Journal be self-supporting? The value of The Journal to you can be increased in direct proportion to the support given our loyal advertisers. Today is a good day to read the advertisements in The Journal and to begin the practice of reciprocity.

THE NEW MEDICAL SCHOOL

An Editorial by Dr. Frank Vinsonhaler, Little Rock

On January 4, at 5:00 p. m., the following telegram was received from Senator Joseph T. Robinson: "Today the Public Works Administration approved the loan of $500,000.00 for the medical school."

Words cannot describe the great joy that this communication brought to those who have fought the battles of the school for many years. It marked the end of a long and difficult pathway and the consummation of our dearest hopes.

The plans for the medical school building were prepared by Mr. Ray Burks, architect in Little Rock. They include a building two hundred and eighteen feet in length and five stories high, the sixth story being composed of a receptacle for dogs and animals used in experimentation. The basement includes the room for the Isaac Folsom Clinic with additional space on the second story for the group in internal medicine. All the latest improvements will be found in the examination rooms for the different specialties. The entire building will be of concrete, reinforced with steel and brick facings.

On the second floor is to be found the office of the administration, cafeteria for students and the library. The third floor is given over to the departments of pathology and bacteriology, the fourth floor to chemistry and physiology and the fifth floor to anatomy. On the second and third floors are to be found lecture rooms and an amphitheatre. There are a number of rooms in the different departments set aside for research work, there being a number of private laboratories for this purpose. An elevator supplies all floors.

The building will front west, facing the City Park, and will adjoin the City Hospital, which has a capacity of one hundred and thirty-four beds and which can be increased and no doubt will in case of the consolidation of the County and City Hospitals, which plan is now being considered.

There will be room for four classes of seventy-five each and the latest equipment will be employed in all the laboratory departments.

It is hoped that the contract for the building can be let in six weeks and that by an intensive building program the building can be made ready for the mid-September class of 1934. It is the hope of those interested in the building that at the meeting of the State Medical Society on April 16 construction will be under way so that some public ceremony can be held. There is no doubt but that the profession of the State of Arkansas will be deeply interested in this wonderful advance in medical education in our State and will realize that improvement has not come too soon. We feel that in quoting from an editorial in the Arkansas Gazette we are voicing the sentiment of the profession: "This event places the School of Medicine of the University of Arkansas upon a sound foundation for all time. It affords an opportunity for the young men of Arkansas to secure a medical education. It affords the sick poor of the State of Arkansas medical and surgical attention."

The Southeastern Surgical Congress will hold its fifth annual assembly in Nashville, Tennessee, March 5, 6 and 7. The Andrew Jackson Hotel will be hotel headquarters and the lectures and exhibits will be in the War Memorial Building.

The following doctors will occupy places on the program: Fred H. Albee, New York; W. Wayne Babcock, Philadelphia; S. O. Black, Spartanburg; Vilray P. Blair, St. Louis; Frank K. Boland, Atlanta; J. B. Brown, St. Louis; D. B. Cobb, Goldsboro, N. C.; George W. Crile, Cleveland; T. C. Davison, Atlanta; John F. Erdmann, New York; P. G. Flothow, Seattle; Seale Harris, Birmingham; M. S. Henderson, Rochester, Minn.; Arthur E. Hertzler, Halstead, Kansas; Chevalier Jackson, Philadelphia; Walter C. Jones, Miami; Dean Lewis, Baltimore; Joseph F. McCarthy, New York; C. Jeff Miller, New Orleans; A. J. Mooney, Statesboro, Ga.; John J. Moorhead, New York; Edward T. Newell, Chattanooga; Fred Rankin, Lexington, Ky.; Paul H. Ringer, Asheville; Stewart Roberts, Atlanta; George H. Semken, New York; Phil C. Schreier, Memphis; Arthur M. Shipley, Baltimore; H. E. Simon, Birmingham; A. O. Singleton, Galveston; J. R. Young, Anderson, S. C.; Waitman F. Zinn, Baltimore.

For information write Dr. B. T. Beasley, 1019 Doctors' Building, Atlanta.

PRESIDENT'S PAGE

Emergency Medical Fees

Relative to the fees allowed by the Federal Emergency Relief Administration for Arkansas and concerning which there has been much discussion among Arkansas physicians, the writer desires to inform members of the Arkansas Medical Society that this matter was originally taken up with Dr. Wm. C. Woodward, Bureau of Legal Medicine, American Medical Association, who replied:

> *"The several State relief administrations are directed by groups of responsible men and women appointed by the governors of the several States with the approval of the Federal Relief Administration. The Federal Relief Administration has laid down certain principles for their guidance in Rules and Regulations No. 7* (reprinted in full in the October, 1933, issue of The Journal of the Arkansas Medical Society). *These principles were laid down along broad general lines so as to leave the several relief administrations throughout the country a wide discretion in organizing State relief in the manner best suited to local conditions. The Federal Emergency Relief Administration is loath, therefore, to determine the needs of the several States and to direct State relief administrations to adopt measures not approved by the best judgment of the State agency."*

These regulations state that the policy governing the medical care of indigent persons in their homes shall be the basis of an agreement between the relief administration and the organized medical, nursing and dental professions.

At a meeting of the Council held September 15, 1933, a committee of Drs. McCaskill, Grayson, Parmley, Brooksher, Mr. Deisch and the writer was appointed to confer with Mr. W. R. Dyess, Federal Relief Administrator for Arkansas, concerning the fee schedule which was adopted by the State Relief Administration. After several attempts a meeting was arranged between this committee and Mr. Dyess on October 9, 1933, at which the writer was unable to attend due to absence from the State. The fee schedule adopted by the relief administration was discussed at this meeting and Mr. Dyess was presented with a schedule which had been drawn up by the committee:

> "Office visit, $1.00.
> Residence call, city limits, day, $2.00.
> Residence call, city limits, night, $3.00.
> Country calls the same as city calls plus 25 cents per mile one way.
> Surgical operations: One-half the usual charge as has heretofore been made in the respective communities.
> Obstetrics, including pre-natal and post-natal care, $20.00."

At this same meeting Mr. Dyess was advised of the fact that an article which had appeared in the Arkansas Gazette was distasteful to the medical profession and he denied its authorship. Six weeks after this meeting of the committee with Mr. Dyess, the following letter was received from him:

> *"In reply to your letter of November 20th (Dr. McCaskill) relative to the conference between your committee and myself some five or six weeks ago, I wish to advise that this matter was taken up with the said committee (Arkansas Emergency Relief Administration) and the Federal field representative, while he was here, and it was decided that we could not increase the medical fees released in the Medical Bulletin prior to that date * * *."*

Now, gentlemen of the Arkansas Medical Society, your president, your secretary and the members of the Council have not been negligent and have used every possible effort in your behalf to secure approval of the schedule submitted by our committee instead of the existing one. The last report seems to be an appeal through your senators and congressmen by letter giving fee schedules from surrounding States as well as from some of the northern States as compared with ours. We want you to realize that our efforts are being put forth but you can aid by following up your councilor's letter with a letter to your congressman and senator. Let's get organized and fight for what is right and just.

L. J. KOSMINSKY, M. D.

Proceedings of Societies

Johnson and Franklin County Societies met in annual banquet session at the Arlington Hotel, Clarksville, January 10, 1934. Drs. Thos. Douglas, Ozark, presided as toastmaster. Dr. Pat Murphey, Little Rock, spoke on "Reflexes" and Dr. W. G. Eberle, Fort Smith, on "Non-malignant Lesions of the Cervix." Forty physicians were in attendance, the visitors being: Pat Murphey, W. F. Smith, H. F. DeWolf and E. I. Thompson, of Little Rock; Roy Millard and E. J. Haster, Dardanelle; S. C. Grant and O. J. Kirksey, Mulberry; W. G. Eberle, C. S. Holt, F. H. Krock, C. B. Billingsley, J. W. Amis, D. W. Goldstein and W. R. Brooksher, of Fort Smith.

Sebastian County Medical Society held its Sixtieth Annual Banquet session at Fort Smith on January 9th with ninety physicians in attendance. The banquet was dedicated to W. R. Brooksher, State Secretary and the following State Medical officers were in attendance: M. E. McCaskill, Little Rock, Chairman of the Council; J. H. Fowler, Harrison, Vice-President; W. H. Moek, Prairie Grove, Past President; H. Moulton, Fort Smith, Past President; R. J. Caleote, Little Rock, Treasurer; D. L. Owens, Harrison, Councilor and S. J. Wolfermann, Fort Smith, Councilor. The newly-elected officers: I. F. Jones, president; B. L. Ware, vice-president; J. W. Amis, secretary, and W. R. Brooksher, treasurer, were installed. Entertainment features and talks by visiting physicians featured the meeting.

Mississippi County Medical Society met at the Blytheville Hospital January 2, 1934, for installation of officers and to hear a paper by Dr. N. B. Ellis, of Wilson on "The Importance of Urinalysis." Dr. D. L. Boyd, Blytheville, was elected to membership. Members present were: Barksdale, Ellis, Fall, Tidwell, Luckett, Howton, Hudson, Tipton, Washburn, Husbands, Sims and Hoyt McDaniels, Steele, Mo., and Lawrence Cooper, Cooter, Missouri, as visitors. The 1934 officers are: President, J. L. Tidwell, Dell; Vice-president, J. T. Polk, Keiser; and Secretary-Treasurer, F. D. Smith, Blytheville.

Conway-Pope-Yell County Medical Society met in dinner session at Dardanelle, January 18th with Dr. G. R. Siegel, Clarksville, as guest speaker on "Endocrine Therapy in the Climateric." Officers elected for 1934 are: L. M. Smith, Russellville, president; E. L. Matthews, Morrilton, vice-president and Robert Hood, Russellville, secretary-treasurer. The next meeting will be held at the Pearson Hotel, Russellville on February 8th.

At a recent meeting of the staff of St. Vincent's Infirmary, Dr. M. J. Kilbury was reappointed chief of staff and Dr. R. J. Calcote, secretary, for 1934. The following committees were appointed by Dr. Kilbury:

Interne: S. C. Fulmer, H. Fay H. Jones, G. V. Lewis and S. P. Bend.

Asepsis: H. W. Hundling, Homer Higgins and R. M. Eubanks.

Record: R. M. Blakely, Joe Roe, Clyde Rogers, G. F. Jackson and Joe H. Sanderlin.

Library: H. R. Allen, S. B. Hinkle, O. C. Melson and E. H. White.

Program: D. A. Rhinehart, Paul Mahoney, A. W. Strauss and W. F. Smith.

Advisory: Rev. John Healy, Robert Caldwell, Dewell Gann, M. J. Kilbury and the Sister Superior.

For the scientific session, Drs. John Clark and Clark presented four cases of uremia and Dr. Charles Reed, Jr., reported a case of meningitis where recovery was effected in ten days. Dr. Dewell Gann reviewed 500 appendcetomies performed in the hospital with but 25 deaths.

Drs. J. C. Jones and Walter Hutchinson were admitted to the regular infirmary staff.

Lonoke County Medical Society met January 10th as the guests of M. E. Lyons of the Lyons Drug Store, Lonoke, for a dinner meeting. Dr. Dewell Gann, Little Rock spoke on "Transillumination of Cancer of the Breast." Dr. J. R. Wells, Scott, was elected president and O. D. Ward, England, secretary.

The regular meeting of the Tri-County Medical Society was held at the Garrett Hotel, El Dorado, Arkansas, January 9, 1934, under the auspices of the Union County Medical Society.

After invocation by the Rev. Dr. Sheppardson of the First Presbyterian Church, a delicious banquet was served.

There was an address of welcome by the Hon. Walter L. Goodwin, Mayor of El Dorado, after which a short business session was held.

Upon the motion of Dr. L. L. Purifoy, Councilor of the Fifth District, after some discussion, the Tri-County Medical Society was converted into the Fifth Councilor District Medical Society including Union, Ouachita, Columbia, Calhoun, LaFayette, and Dallas Counties.

An election of officers was held and the following officers were elected: President, Dr. Leslie A. Purifoy, El Dorado; Vice-President, Dr. W. P. Cooksey, Magnolia; Secretary, Dr. D. E. White, El Dorado.

An entertaining and instructive talk on "Medical Organization of Today" was made by Dr. L. J. Kosminsky of Texarkana, President of the Arkansas Medical Society.

Dr. Eugene Rosamond, pediatrician of Memphis, read a brilliant paper on "The Practical Points in the Diagnosis and Treatment of Infantile Paralysis."

Dr. R. L. Sanders of Memphis gave a splendid talk illustrated by lantern slides on "Surgical Lesions of the Gall Bladder."

These papers were discussed by the members present and there being no further business to transact, the meeting adjourned to meet three months hence at Magnolia.

LESLIE A. PURIFOY, Secretary.

The Southeast Arkansas Medical Society met at Lake Village, January 15th for the following program:

"Allergic Diseases," Alan G. Cazort, Little Rock.

"Organization of District Medical Society," W. H. Hemley, Lake Providence, La.

Members present: Smith, Burge, McGehee, W. D. Easterling, W. W. Easterling, W. W. Kimbro, Rand, Barlow, Clark, Craig, Douglas, Pauli, Hawkins and Cone. Visitors present: Hemley, Williams, of Lake Providence, La., John Kelly, Dan Kelly, Butler and Dollarhide, of Oak Grove, La., and Alan G. Cazort, Little Rock.

M. C. CRANDALL, Secretary.

Obituary

DR. C. F. NELMS, aged 62, died at his home at Laneburg, December 25, 1933.

DR. HARRY NORWOOD STREET, aged 65, died at his home in Lonoke, October 3, 1933. He graduated from Tulane University of Louisiana in 1890 and had practiced at Lonoke for many years.

DR. WALTER O. PARRISH, Rector, died December 29, 1933, following a cerebral hemorrhage December 27th. He was born at Martin, Tennessee, April 29, 1875, and graduated at the University of Nashville Medical Department in 1898. He is survived by his wife, a son, John D. of Rector, and five brothers.

DR. FRANK B. KIRBY, aged 56, died at his home in Harrison on January 20th of a heart attack. He had not been well for several weeks but made his calls until the morning of his death. He was born in Harrison August 13, 1877, and after completion of his high school work in Harrison, entered the University of Arkansas, obtaining his A. B. degree in 1900. His medical education was completed at Washington University in 1904 and thereafter he was associated with his father, Dr. Leonidas Kirby, in practice until 1926, an association dissolved by the death of his father. He was a past president of the Boone County Medical Society, a charter member and past president of the Harrison Rotary Club. He is survived by his wife, Mrs. Goldie Worthington Kirby and four children, Joe, Beverly, Virginia and Mrs. Orville McCoy, his mother, Mrs. L. Kirby and three brothers, Dr. Crump Kirby, Leonidas and Lee B. Kirby.

Auxiliary Page

Mrs. D. W. Goldstein, Publicity Secretary,
616 North Greenwood Avenue
Fort Smith

The Woman's Auxiliary to the Pulaski County Medical Society met Wednesday afternoon, December 13th, at the home of Mrs. B. A. Rhinehart, with Mrs. L. V. Parmley, Mrs. R. C. Kory, Mrs. H. S. Thatcher and Mrs. L. D. Reagan, assistant hostesses. Mrs. B. A. Bennett, president, presided over a short business meeting. Mrs. J. B. Crawford, program chairman for the afternoon, presented the following musical program: Mrs. W. R. Richardson sang "Life," "A Memory" and "The Lilac Tree" with Henry Sanderson at the piano. Mrs. E. W. Masters, violinist, played "Meditation" from "Thais" and "Holy Night," with Mrs. R. E. Overman at the piano. Mrs. J. Turner Lloyd gave a musical reading "The Old-Fashioned Christmas." Mrs. Bertha Kirby Nelson played two piano numbers "A Journey On a Train" and "Bouree." Refreshments were served by the hostesses.

The Obstetrical Pack Committee of the Woman's Auxiliary to the Pulaski County Medical Society met Wednesday afternoon, January 10th, at the home of Mrs. S. C. Fulmer. Under the supervision of Mrs. Anderson Watkins, committee chairman, 12 packs were assembled by the following members: Mrs. Charles E. Oates, Mrs. C. C. Reed, Mrs. B. A. Rhinehart, Mrs. F. E. Hurrle, Mrs. W. H. Miller, Mrs. W. F. Smith, Mrs. J. B. Crawford, Mrs. T. M. Fly, Mrs. W. L. Sadler, Mrs. L. F. Barrier, Mrs. G. F. Jackson, Mrs. D. M. Switzer, Mrs. A. C. Shipp, and Mrs. B. A. Bennett. Refreshments were served by the hostess at the conclusion of the meeting with Mrs. B. A. Rhinehart, assisting.

The gayest of all Christmas parties took place December 29th, at the Texarkana Country Club when the doctor's families were guests at a dinner of the Woman's Auxiliary to the Bowie and Miller Medical Societies. Hostesses were Mrs. Charles Adna Smith, Mrs. Harry Murry, and Mrs. L. J. Kosminsky.

At a "U" shaped table, festive with green and red coloring, bamboo leaves and berries, the arrangements were made more effective by crimson candles in single and five-branched candelabra shedding their soft gleam.

Places were marked for Dr. and Mrs. E. M. Watts, Dr. and Mrs. Decker Smith, Mrs. Charles Adna Smith, Dr. and Mrs. Charles Adna Smith, Jr., Dr. and Mrs. A. W. Roberts, Dr. and Mrs. P. H. Phillips (Ashdown), Dr. and Mrs. George Parson, Dr. and Mrs. Harry Murry, Dr. and Mrs. Albert Mann, Dr. and Mrs. L. H. Lanier, Dr. and Mrs. L. J. Kosminsky, Dr. and Mrs. T. F. Kitrell, Dr. and Mrs. C. E. Kitchens, Dr. and Mrs. R. R. Kirkpatrick, Dr. and Mrs. Preston Hunt, Dr. and Mrs. William Hibbitts, Dr. and Mrs. N. B. Daniels, Dr. and Mrs. S. A. Collom, Dr. and Mrs. Alan Collom, Jr., Dr. and Mrs. George W. Cale, Jr., Dr. and Mrs. Roy Baskett, and the following visitors. Thomas Kitrell, Jr., Miss Julia Hodgson (Nashville, Tenn.), a guest of Dr. and Mrs. Allan Collom, Jr., Mrs. James K. Tully and Dutro Cale, guests of Dr. and Mrs. Cale; and Mr. and Mrs. Gamewell Gantt and Mrs. James F. Warren, guests of Dr. and Mrs. Collom.

Preceding the dinner, Mrs. Chester Kitchens, president of the auxiliary, extended a welcome to the guests.

The Tri-County Medical Auxiliary met December 26th in Prescott. A most enjoyable and interesting meeting was held.

Mrs. Hibbetts and Mrs. Kosminsky from Texarkana were guests and gave helpful talks and suggestions.

Plans were made for the year's work. The next meeting will be in Arkadelphia on February 22nd with Mrs. B. A. Rhinehart of Little Rock as a guest of the auxiliary.

The Woman's Auxiliary to the Pulaski County Medical Society met Wednesday afternoon, January 17th, at the home of Mrs. C. W. Garrison, with Mrs. W. F. Smith, Mrs. W. R. Bathurst, Mrs. L. F. Barrier and Mrs. N. W. Riegler, assistant hostesses. Mrs. B. A. Bennett, president, presided over the business session at which time, Mrs. W. C. Langston was welcomed as a new member and Mrs. Oscar Gray again became an active member. Mrs. J. B. Crawford, program chairman, presented the program for the afternoon. Mrs. B. A. Rhinehart, president of the Woman's Auxiliary to the Arkansas Medical Society,

spoke on using the county auxiliary as a clearing house for the public health work of the various clubs of the city. She also outlined her plans for the State convention in April. Miss Gertrude Remmel, president of the Little Rock Junior League, told of the many interesting phases of work being done by the Junior League in the city. As the concluding number on the program Miss Emma Reiman gave a most comprehensive review of "The Fountain" by Charles Morgan. Later tea was served in the dining room by Mrs. B. A. Rhinehart and Mrs. B. A. Bennett. The table was covered with a handsome lace cloth and centered with a bowl of yellow roses, tulips and narcissi, flanked by yellow candles in crystal holders. Mrs. J. F. Garrison and Mrs. G. B. Kenny were guests for the afternoon.

Announcement

A cordial invitation is extended to the medical profession of Oklahoma, Texas, Arkansas, Missouri, and Kansas, by the President and Board of Regents of the American College of Surgeons, the Oklahoma State Executive Committee, and the Oklahoma City Committee on Local Arrangements, to attend the Oklahoma-Texas-Arkansas-Missouri-Kansas Sectional Meeting of the College at Oklahoma City on Thursday and Friday, February 22 and 23, 1934.

FIFTY YEARS—GOLDEN JUBILEE DR. PILCHER—ANNALS OF SURGERY

The quality of uniqueness is not concealed. It is patent and obvious. When Lewis Stephen Pilcher entered the University of Michigan at the age of thirteen and took his bachelor's degree at seventeen, he did the unique thing. He still stands today, at the age of eighty-nine, the youngest matriculant and the youngest graduate of that great institution. His master's degree was added within a year; and in that same year he entered upon medical study. This was in 1863 when the Civil War was raging. The next year found him with enough medical knowledge to volunteer as a hospital steward and throw himself into the thick of service to the sick and wounded. This was the beginning of his medical experience—seventy years ago.

Then back to the University of Michigan and the doctor's degree in 1866. Many years later, 1890, this same institution conferred upon him the further honorary degree of Doctor of Laws. Practice began in a rural district of Michigan at the age of twenty; at the same time, to guarantee a livelihood, teaching in the little schoolhouse by the blacksmith shop. He rode his horse across the countryside to the call of the sick, followed the current literature of medicine, and for diversion read the classics in their original Greek and Latin.

However, the broken legs and arms and the ills of country folks were not enough. Already he had out his lines for wider fields. The next move was to an interneship in a Detroit Hospital. Then a post-graduate course in the hospitals of New York City. And then came the successful examination and appointment as Assistant Surgeon in the United States Navy in 1867. He sailed the seas, got experience with practice and with people, and read voraciously. In 1869, yellow fever broke out on the wooden sailing frigate "Saratoga," in Havana harbor. The surgeon of the ship was one of the first to die of the disease. Upon his death, in his place, the young Assistant Surgeon Pilcher was sent from another ship to the stricken vessel. With her infected crew she started for northern waters. By the time she reached New York and was relieved, thirty-seven cases of the disease had developed, seventeen of whom died. Then the assistant surgeon also came down with yellow fever and was removed to the Naval Hospital at Brooklyn. His recovery, "The Lady of the Flowers," his marriage, retirement from the navy, and entrance into private practice, in 1872, all spelled romance and adventure.

The ANNALS OF SURGERY was the first surgical journal in the English language. It has been guided continuously by a single hand, Dr. Pilcher, who originated the ANNALS OF SURGERY in 1885 and has continued as editor to the present day. It has always reflected its editor's standards of quality. Dignified, sincere, scientific, it has maintained its excellence. As the official organ of the American Surgical Association, the New York Surgical Society, and the Philadelphia Academy of Surgery, it has profoundly influenced American surgery. It has inspired a high quality not only in surgical journalism but in surgical practice as well. It has for fifty years steadfastly kept the faith as a true monthly review of surgical science and practice. And for this, medicine owes a debt to this one man.

Honors without number have expressed the esteem of medicine and learning. Dr. Pilcher was President of the New York State Medical Society in 1892 and of the Medical Society of the County of Kings in 1900. He is a Fellow of the American Surgical Association, and was its President in 1918; Honorary Fellow of the American College of Surgeons, the Philadelphia Academy of Surgery, the College of Physicians of Philadelphia, the New York Surgical Society, and the Brooklyn Surgical Society, and one time Commander-in-Chief of the Grand Army of the Republic.

Book Reviews

Obstetric Education. A publication of The White House Conference. Report of the Subcommittee on Obstetric Teaching and Education. Price, $3.00. Pp. 302. Published by The Century Company, New York.

The Committee on Prenatal and Maternal care of the White House Conference on Child Health and Protection is of the opinion that there are many unnecessary maternal deaths in the United States. Conscious that the high maternal mortality rate in this country is a reflection on the education and training of those who furnish maternity care, the Subcommittee on Obstetric Teaching and Education made a study of conditions and have given their report and recommendations for improvement in this volume.

Erdmann Clinics. John F. Erdmann, M. D., F. A. C. S., Professor of Surgery in Columbia University. Edited by J. William Hinton, M. D., F. A. C. S., Associate Professor of Surgery, New York Post-Graduate Medical School. 315 pages. Philadelphia: W. B. Saunders Company, 1932. $4.50.

This volume is composed of selected excerpts from the clinics of Dr. John F. Erdmann, who is Professor of Surgery in Columbia University. Notes were taken from the talks given by Dr. Erdmann in his clinics and this volume has been edited by Dr. J. William Hinton. The volume deals with many practical problems in general surgery.

An Introduction to Dermatology. By Richard L. Sutton, M. D., Sc.D., LL. D., F. R. S. (EDIN.), Professor of Diseases of the Skin, University of Kansas School of Medicine; and Richard L. Sutton, Jr., A. M., M. D., L. R. C. P. (EDIN.). Assistant in Dermatology, University of Kansas School of Medicine. 190 illustrations. Second Edition. C. V. Mosby Company, St. Louis, Mo., 1933.

This edition, as was the first, meets the requirements of the general practitioner and students for a comprehensive text on diseases of the skin. The newer treatments have been added and the rarer dermatoses are omitted. The book is written in a practical vein and the theory left for others. Is readable and easily assimilated.

Management of the Sick Infant. By Langley Porter, B. S., M. D., M. R. C. S. (Eng.), L. R. C. P. (London). Professor of Clinical Pediatrics, University of California Medical School, and Wm. E. Carter, M. D., Instructor in Pediatrics, Chief, Pediatric Out-Patient Department, University of California Medical School. 760 pages, with 85 illustrations. Fourth Edition, Revised. Price, cloth, $10.00. C. V. Mosby Co., St. Louis.

If one is looking for a concise, practical and yet sufficiently comprehensive review of modern thought and methods in the management of the sick infant, one cannot find a better book.

The chapter on the frequently neglected "Drug Treatment" in the various disorders of infancy is unusually complete and informative. The chapter on "Methods" is somewhat unique and here we find grouped under one heading the accepted technique of the various pediatricians. These various methods and procedures are plainly and concisely detailed in plain understandable language. This chapter contains a world of useful information and should be helpful even to the experienced specialist.

Throughout the entire work the subjects are treated in a concise and practical manner and yet each subject seems to be fully covered.

Frankly, we see little room for criticism and much room for commendation. The book runs true to its title. It really tells you all you need to know about the management of the sick infant.

The Surgical Clinics of North America. Issued serially one number every other month. Volume 13, No. 6. Index Number. (Pacific Coast Surgical Association Number, December, 1933.) 284 pages with 97 illustrations. Per clinic year (February, 1933, to December, 1933) Paper, $12.00; Cloth, $16.00 net. Philadelphia and London: W. B. Saunders Company, 1933.

This number contains work from a very large number of surgeons of the Pacific Coast. There are a number of interesting and rare cases reported, one of which was the removal of a gauze sponge after eighteen years in the abdomen. There is a very good description of the Wallton method of reducing cervical spine dislocations with report of cases. A report of a failure in diagnosis in a case of brain abscess resulting in an interesting observation and cure. A short discussion of the injection treatment of hemorrhoids with the note that the dangers are in injecting external and not internal hemorrhoids.

The Technic of Local Anesthesia. By Arthur E. Hertzler, A. M., M. D., Ph. D., L. L. D., F. A. C. S., Professor of Surgery in the University of Kansas. Cloth Edition. Price, $5.00, pp. 292, with 148 illustrations. St. Louis: C. V. Mosby Co., 1933.

Reading Hertzler is always a pleasant and profitable way to spend an evening. The book under consideration proves no exception to the foregoing statement. The author in dealing with the various subjects covered in this book indulges in his customary pointed satire and caustic comment.

The title, "Local Anesthesia" would appear to be too restricted. The book itself comprises chapters on infiltration anesthesia, regional nerve blocking, para-vertebral block, spinal anesthesia and intravenous anesthesia or hypnosis. The book opens with a description of the chemicals used in the securing of anesthesia and the advantages and disadvantages of each. The author is partial to novocaine as are most experts at the present time but retains his fondness for quinine and urea hydrochloride for certain procedures. The succeeding chapter describes the technic of administration and then follow chapters describing in detail the technic in the induction of anesthesia for the various operations suited for local anesthesia.

The author's comments are stimulating and instructive. An expert on local anesthesia, he is far from being an over-enthusiast or partisan. The chapter on spinal anesthesia is especially fine. The fact that this is a fifth edition bespeaks the popularity and usefulness of this book.

A. F. H.

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Original Article

TRANSURETHRAL PROSTATIC RESECTION*

H. FAY H. JONES, M. D., F. A. C. S., and T. DUEL BROWN, M. D., Little Rock

During the past several months transurethral prostatic resection has received more publicity and consideration than any other topic in the field of urology. The perfection of the high frequency resectoscope is the latest and most outstanding achievement for the correction of prostatic obstruction.

In 1926 Stern (1) introduced the first high frequency arc cutting instrument. This was modified the following year by Davis (2), who has reported a series of three hundred and seventy-two resections. Since then several different types of instruments have been introduced. Recently McCarthy designed a high frequency resectoscope which is probably the most popular today. This is the instrument that we have been using. It has a visual prostatic electrotome which enables the operator to intelligently observe the field of operation during the resection. Thus, the areas of hemorrhage can be accurately visualized.

The high frequency current for cutting is furnished by two types of transformers, namely; the spark gap or damp current and the vacuum tube or undamped current. Several electrical units of each type have been introduced by different surgical firms. According to reports of electrophycists, the current through the damped machine cuts deeper, causes more sloughing, and coagulates bleeding vessels more satisfactorily than the undamped current. However, the vacuum tube surgical unit cuts with less dessication of the underlying tissue, giving less slough and yet coagulates the ends of the vessels very satisfactorily. The Westinghouse apparatus, a spark gap machine, has been used with very satisfactory results in our cases. We feel that the cut edges may not be as smooth as with the tube machine, but hemorrhage is controlled more adequately. This is of paramount importance in this type of operation. The inability to control hemorrhage has always been one of the chief objections to transurethral operations. We believe that with the spark gap machine such rapid and permanent coagulation of the vessels has been accomplished so that additional instrumentation does not cause a recurrent or secondary hemorrhage. It seems that the ideal machine would be one that could furnish both the damped and undamped currents. The resection could be made with the undamped current and the coagulation with the damped current. If one generator should fail to work the operation could be continued with the other, thereby preventing delay and complications. Some men claim that the spark gap current causes more granulation of the surrounding tissues, but Davis has used this type of machine for five years and has not noticed any contracture or fibrosis at the vesical orifice.

We wish to report our experiences and observations in eighteen cases that we have had during the past ten months. Most of our patients were not seen until after entering the hospital following repeated unsuccessful attempts at catheterization. Manuevering with either soft rubber or metal catheters had caused bleeding from the urethra and increased edema in the traumatized areas. In three instances it was necessary to do an emergency suprapubic cystotomy to remove clots from the bladder and control the hemorrhage. Local anesthesia was used in each of these cases. During this operation the bladder and prostate can be examined. In one case there was an early malignancy with an eroded area on the left lateral lobe which bled profusely. It was necessary to cauterize the

*Read before the Fifty-eighth Annual Session of the Arkansas Medical Society, held at Hot Springs National Park, May 2, 3, 4, 1933.

bleeding area and pack the bladder to control the hemorrhage. In a majority of the cases there were signs of uremia which was treated by continuous drainage of the bladder, glucose and saline solution intravenously, and palliative measures until the condition warranted a cystoscopy.

Before definitely deciding to do a transurethral resection of the prostate, a careful cystoscopic examination should be made to determine the type and grade of hypertrophy, and whether or not there is a stone, new growth, or a diverticulum of the bladder. *X*-ray examination of the urinary tract sometimes reveals an unsuspected stone in one or both of the kidneys. This has happened once in our experience. Ureteral catheterization for the collection of specimens and a functional test on each kidney was done routinely. Either or both phenolsulphonephthalein and indigo carmine may be used.

Some men advocate repeated resections of the prostate even in a case of marked intravesical enlargement of the lateral lobes, but if the patient is active and in a very good physical condition for a prostatectomy, we believe that he will be able to return to his work sooner by having the open operation. If resection is attempted in this type of case we believe it easier to resect the lateral lobes before starting on the median bar lobe, thereby leaving the middle portion as a guide and also to help hold the resectoscope in place. In some of our earlier cases, in which the median lobe was resected first, the lateral lobes closed in so that visualization was poor.

Depending upon the condition of the patient, the period of preparation may require several weeks. Most of them go home for two to three weeks with an indwelling catheter, which gives adequate drainage, so that the bladder infection may improve and the kidney function become stabilized. Advice is given as to the bladder irrigations, diet, exercise and other activities in general. Many of our patients had lived an active life and were not very cooperative during the preparation. The blood chemistry including non-protein nitrogen, creatinine, and the kidney function tests, especially the phenolsulphonephthalein, should be within normal limits. Routinely repeated blood counts and Schilling's differential counts were carefully made. The general condition should be built up as much as possible in order to shorten the period of hospitalization. It may also become necessary to do an emergency suprapubic cystotomy for the control of severe hemorrhage, rupture of the bladder or any other condition that would warrant such an operation. It is important to have a competent internist make a complete medical examination of each patient.

The ideal condition for this type of operation is where there is a hypertrophy only of the median bar. However, if the lateral lobes are not too large, satisfactory results may be obtained by resecting parts of them. This must be left to the judgment of the operator.

Before starting the operation it is well to test out the machine to see that everything works perfectly. A beef heart submerged in water is very satisfactory for testing and adjusting the cutting current. Any type of anesthesia, such as general, spinal or sacral may be used. A low spinal anesthetic has been employed in all our cases. An internist has been called each time to give the anesthetic and watch the condition of the patient during the resection. The amount of tissue resected depends upon the size of the obstructing portion and the experience and ability of the operator. The bleeders are coagulated sufficiently to stop the hemorrhage, but not in excess, because the coagulating current causes post-operative sloughing. The time required for the actual resection is thirty minutes to an hour, depending upon the condition of the patient and the speed of the operator.

Immediately following the operation the bladder is lavaged with water and then a soft rubber catheter of liberal size is inserted at frequent intervals. The bladder is gently irrigated with sterile water or boric acid solution. The catheter may be removed after forty-eight to seventy-two hours. Frequent and painful urinations are usually present for the first day or two, but gradually subside. It may be necessary to catheterize the patient during the first few hours following removal of the catheter. At first there may be residual urine of two to three ounces, but this gradually decreases as the bladder condition improves. The period of post-operative hospitalization is usually from three to ten days.

We do not believe that total prostatectomy will be supplanted by this or any other transurethral method of operation. As the public

becomes better edueated on this subjeet the patients will seek aid before the kidneys, heart and blood vessels have been so markedly impaired as has previously been the practice.

A resection of the eareinomatous obstrueting prostate gives very satisfactory results by restoring urination without permanent suprapubie drainage. The current whieh passes through the resecting eleetrode produees some destruetive effects upon the eaneerous eondition, thereby having some therapeutie value.

You are aware of the faet that transurethral reseetion is not a minor proeedure and that the preparation of the patient is just as important as in a prostateetomy.

Summary

1. The MeCarthy reseetoscope has been very satisfactory.

2. The Westinghouse unit for supplying the eutting eurrent has also been eommendable.

3. One or even two reseetions are preferable to a prostateetomy, but if more than two is neeessary for relief of the obstruetion, prostateetomy is to be preferred.

4. Resection is a great advanee in prostatie surgery and only the patients with large adenomatous prostates will be subjeeted to prostateetomy.

5. Hemorrhage is an important factor in dealing with these patients and every effort should be made to eontrol it at the time of operation.

6. Reseetion whieh gives relief from the obstrueting eareinomatous prostate is mueh preferred to the eontinuous suprapubie eystotomy. This proeedure may be repeated if neeessary.

7. Transurethral reseetion marks a distinet advanee in the relief and treatment of prostatie obstruetion.

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DISCUSSION

DR. H. KING WADE, Hot Springs National Park: In the discussion of Dr. Jones' paper I desire to mention briefly the pathological changes requiring resection. The three chief types are glandular hypertrophy, median bar and carcinoma. In glandular hypertrophy the true etiology is not known. Enlargement may occur in the lateral lobes, posterior commissural tissue, the subcervical gland of Albarran or in the anterior commissure. Microscopically this enlargement is that of an adenoma. The median bar is a fibrosis of the vesical orifice and is believed to be due to long standing prostatic infection. Carcinoma of the prostate is usually a true adenocarcinoma producing obstruction at the vesical orifice by marked induration of the structures, thus interfering with the action of the vesicle sphincter.

I would like to add to the indications already mentioned by Dr. Jones those patients who are much debilitated from constitutional diseases such as renal and heart afflictions.

I wish to emphasize the preparation of the patient for resection. Often the patient desires to have a resection immediately upon reporting to you. This is possible in some cases, but most of them have to be prepared the same as for prostatic enucleation. Blood chemistry must be within normal limits. Kidney function must be determined and should be within normal limits on two or more occasions before pronouncing the patient ready for resection. Infection, when present, must be cleared up as nearly as possible.

The chief complications in resection are hemorrhage and infection. Hemorrhage has not been a serious complication in our work, but it does occur primarily and secondarily, and may require suprapubic cystotomy at times to control. Infection, however, has been a most annoying complication in our cases, which further impresses us with the importance of the preparation of the patient, and the post-operative care.

There has been considerable discussion relative to the types of prostatic obstruction that should be resected. This I think depends a great deal upon the operator's personal experience and skill. I do not believe that resection will entirely replace enucleation. If patients are seen in the early stage of prostatic hypertrophy, I can see no reason why resection should not correct all of them. Resection for carcinoma of the prostate is done solely for the relief of urinary retention, and in most cases is found to be very satisfactory.

Transurethral resection beyond a doubt is a great step forward in urological surgery, and its success in the individual operator's hands will depend upon his skill and experience in the handling of the instrument, and his ability as a cystoscopist to recognize pathology producing obstruction at the vesical orifice.

DR. G. W. REAGAN, Little Rock: I think the invention of the rectoscope is the greatest advance we have had in modern urology. It is an instrument by which we can see what we are doing and at the same time control hemorrhage, which has been previously our great drawback in this type of work. To do this work you have to know your anatomy and you have to know your relations. That is the chief objection to this instrument. It takes experience with bladder work to know where you are at all times to be able to use the instrument.

I have divided the types of prostates that can be operated upon with this instrument into four. One is the sclerotic prostate which usually has the median bar formation, from which we get

the best results. Then we have the adenomatous prostate, with most of our enlargement in the posterior fossa or what is known ordinarily as the median lobe. Then we have the carcinomatous prostate, that cannot be removed by a suprapubic operation. It causes obstruction. By this method, if we can remove enough of the tissue, the patient can get relief and at the same time we control the hemorrhage. You don't open up avenues in which the carcinomatous tissue can spread to other parts of the body. This really gives, I think, our very best results and the very best hopes in this type of condition. Then we have that type of prostate where I do not think the resectoscope should be used, and that is the large adenomatous prostate.

I want to agree with Dr. Wade that we should use the sacral block in place of the spinal anesthetic in these cases. With the spinal anesthetic, we get a lot of relaxation and a lot of shock. I am surprised at the amount of shock we get in these patients, especially where you have to do repeated spinals in these cases. In one or two cases I have had to use two or three spinal anesthetics. I have had two cases where they developed weakness and coma, and it was my belief that the spinal anesthetic was the cause of it.

I think we should always have an internist on the job with us. I never attempt to take a patient through a prostatic resection of any type of prostatic operation without having an internist on the job with me. I always turn the preparation of the part over to the internist and let him tell me when he thinks the patient is ready. I think I am competent to tell when the blood chemistry is all right and when the kidney test is all right, but I want the internist to tell me when the heart is all right.

Another point I want to stress is that we should let these patients establish normal kidney function for some two or three weeks before the operation. Because the patient shows good kidney function today is not a good sign that he is ready for the operation, but he should show a good kidney function for two or three weeks before, and it is only then that I believe he is ready for the operation.

DR. JONES, in closing: I will not take up much time. I want to express my appreciation for the liberal discussion and also at this time to express my deep appreciation to Dr. Gray, associate of Dr. Rhinehart, for making these slides for me. Dr. Reagan and Dr. Wade mentioned several things, particularly regarding infection and preparation of these patients. I think it is very important. Dr. Reagan mentioned spinal anesthesia. I think probably the sacral block might be better but so far we have had no serious trouble with spinal anesthesia. Both of them mentioned early recognition and treatment. That is the thing we want to stress particularly before you men, and not to wait until these men are in this later stage of hypertrophy and the results of hypertrophy.

I feel there is one case I particularly want to mention in which I had a fatality was a bladder rupture. At no time was a resection made. This patient had a rupture of the bladder which the post mortem showed was due to a weakened condition in the posterior wall. This frequently occurs in your diverticuli. You are liable to have a rupture of the bladder, and that is another reason your cystoscopy should be carefully made beforehand.

Original Article

THE ROLE OF RADIO ACTIVITY OF NATURAL SPRING WATERS AS A THERAPEUTIC AGENT*

Francis J. Scully, M. D.
Hot Springs National Park, Arkansas

The effect of the radio-active properties of natural spring waters has long been a subject of great interest. Natural spring waters have been used since primitive times in the treatment of disease, and judging from the results that are obtained, there can be no doubt as to their value as a curative agent. Whether the radio-active property of the water is the essential factor or whether the results are due to the proper application of the waters has brought about considerable controversy.

Many natural spring waters are radio-active, some to a greater degree than others. As the waters that supply the springs pass up through the earth containing radium ores, they either take up some of the radium salts and carry them in solution, or they absorb the gaseous emanation radon, which is held in solution until the water has been exposed to the air for some time. In either event the waters become radio-active (1).

Radium has been shown to be a very unstable element. It is gradually undergoing disintegration. As the atoms of radium break down, various rays are given off, and eventually only lead is left behind. These rays were first demonstrated by Professor Henry Becquerel of Paris in 1896. Two years later Madame Curie isolated radium and found it to be more radio-active than any other known substance. In her studies she found that the rays given off possessed great powers of penetration and acted on a photographic plate much like the *X*-rays. It is to the activities of these rays that the radio-active effects must be attributed. The process of disintegration, however, is extremely slow; in fact, it is estimated that it would require nearly 1,600 years for one-half the total number of atoms in a given sample of radium to break down. Thus it will be seen that a very small amount of radium can give off rays for a long time, and

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that waters passing in the range of its influence can be given radio-active properties for a very extended period of time.

Radium Emanation

In addition to the various rays given off by radium there is also thrown off a gaseous emanation—radon. This has been found to be a constant decomposition product of radium. It is the heaviest gas known, having an atomic weight of 222, according to the studies of Gray and Ramsay (2). It is formed from radium by the loss of one or more alpha particles which consist of four protons and two electrons. This is the same as the nucleus of the atom of helium, and has a positive electric charge. This alpha particle eventually picks up two electrons and becomes an electrically neutral helium atom.

Radon or radium emanation undergoes disintegration the same as radium and gives off the same rays. However, it has only about 75 per cent of the radio-active strength of radium itself. Radium emanation is the first product of the disintegration of radium. Further loss of alpha particles from the emanation results in the formation progressively of radium A and radium B, while the loss of beta and gamma rays accompanies the change into radium C. Radium A, B and C form a deposit on the walls of the container in which the radio-active waters are stored. Radium C is gradually converted successively into radium D, E and F, which slowly disintegrate into radium G, which is lead.

Radium emanation is rapidly diffused into the surrounding air and is readily soluble in water. When it comes in contact with other substances, the radio-active properties of the emanation are imparted to them. The life of the emanation is very short. Its half value time is 3.85 days, that is, within 3.85 days at least one-half its strength is lost. This half value time is not half its total life but is the life of the first half of the quantity originally present. During the next 3.85 days one-half of the remaining quantity decays, leaving only one-fourth of the original amount. However, for all practical purposes the emanation is completely broken up in 30 days. The end products of the emanation are helium and lead.

Three types of rays are given off, they are known as the alpha, beta, and gamma rays. The alpha rays are positively charged electric particles given off with a velocity of about 18,600 miles per second, having but very little penetrative power. The beta rays are electrons, that is, charges of negative electricity. They have a velocity approaching that of light, and will penetrate one centimeter of body tissue. Being swift moving electrons they are analogous to cathode rays. The gamma rays are ether waves with a wave length of less than 1/5000 that of light. They have the velocity of light, 186,000 miles per second, and can penetrate several inches of lead. After penetrating four centimeters of body tissue they still have nearly 50 per cent of their energy. They are analogous to roentgen or *X*-rays, and are the most effective in producing body reactions.

Radium emanation can be taken into the body by drinking water in which it is held in solution, or it can be breathed in with the air or vapors arising from the radio-active spring waters. As it is a gas it is quickly excreted through the lungs. Strictly speaking, it is an inert gas and may pass in and out of the body without influence. However it has the peculiar property of radium in that it undergoes disintegration, giving off rays and in this way imparts its radio-active influence to the body. The only part of the emanation, therefore, that is effective is the part that is broken down while it is within the body. On breaking down the precipitate of radium A, B, and C, is formed which has a longer life than the emanation itself and continues the radio-active stimulation of the body cells. The emanation has a special affinity for lipoids, and is therefore stored chiefly in the organs rich in lipoids, such as the nervous system and bone marrow.

Effects of Radium Emanation

Observation has shown that radium emanation has a powerful influence on the human body. It has also been noted that the physiological effects that it produces are quite varied. Certain tissues of the body seem to be more strongly affected than others. These are particularly the blood making organs, the lymphatic tissues, the ductless glands, the liver, the kidneys and the brain. It is upon the cells of these tissues and organs that the strongest influence is exerted.

Radium emanation activates cell function and facilitates the elimination of waste products and toxins. There is an activation or

increase in the intensity of the vital energy of the cells. We know that the vital energy of growth and repair is most active in young children and that it gradually diminishes as the individual grows older. It has been found that radium emanation has the effect of strengthening or fostering this vital energy.

The stimulating action of emanation in biochemical processes is shown especially in the increased growth of young plants exposed to its action. Experimental work carried out by Burt (3) showed that barley watered with radio active spring water gave greater growth and was 2 per cent heavier in weight than that watered with tap water. It is also manifested by the stimulation of the blood making tissues, and the sex glands, and an increase in the heart action and basal metabolism. These effects are frequently accompanied by an increased feeling of strength and rejuvenation. Small doses have a stimulating effect on the sex glands. Falta (4) has found it beneficial in diminished potency. On the other hand, large doses have a sterilizing effect, as we all know from the use of radium in the treatment of uterine tumors.

The influence upon metabolism or growth in the body is also very decided, especially is the metabolism of urea promoted, and the excretion of uric acid increased. This is probably due to an activation of the chemical processes in the body which oxidize the uric acid salts and aid in their elimination. There is also an increase in the activity of the kidney.

Colonel L. M. Maus (5) in his report on the Hot Springs of Arkansas states that immersion in the spring water at 98 degrees for ten minutes caused a rise of one degree in body temperature, while a vapor bath of three minutes duration showed a rise of two or more degrees above normal body temperature. This rise of body temperature while in the baths was first reported by Collings (6) in 1905. He attributed it to the radio-activity of the spring waters. Falta (4) also noted that after the use of radium emanation there was increased heat production and a slight rise in temperature. He also observed that the basal metabolism remained at a higher level for some time after treatment with the emanation.

While radium quickly kills bacteria, the radio-active waters are not so powerful. Any effect upon bacteria in the body when exposed to radium emanation is probably due more to the stimulation of the vital resources of the body rather than to any direct bactericidal or antiseptic action of the radium emanation itself.

Chronic inflammatory processes are benefited by the action of radium emanation. Just how this result is brought about is not definitely determined. Since the beta and gamma rays are analogous to the *X*-rays, perhaps a similar action may be presumed to follow the use of radium emanation. It is Desjardins (7) theory that the *X*-rays destroyed the lymphocytes which the body had mobilized in the area of infection, setting free the protective material contained in the cells so that they were more readily available for defensive purposes than when in the intact cells. Lymphocytes are very sensitive to the *X*-ray and the results obtained seemed to depend on the stage of the inflammation. The best results were noted when the lymphocytic infiltration was most marked, less benefit being seen when suppuration developed or when the lesion had become fibrosed and sclerotic. Experimental work showed that the rays had no direct bactericidal action on the infecting organism.

One must understand that the action of the emanation is transient. When water containing the emanation is taken by mouth, only part of it is broken up in the body, the larger part being quickly excreted through the lungs. This excretion takes place rapidly, nearly 80 per cent being eliminated in the first hour, and all free emanation being excreted in four to five hours. A small amount is also excreted through the kidneys. This rapidity of elimination of the emanation emphasizes the fact that no dangerous accumulation can occur in the body. It also indicates that small doses of the emanation are effective in producing the stimulating effects noted after its use. Burt (3) found dilute solutions of radium emanation better than the more concentrated doses. Falta (4) found that more intense effects could be produced by large doses, but this reaction was not desirable in many cases, and in chronic cases, the smaller doses were generally sufficient. Frequent exposures or treatments, however, are necessary to continue the stimulation and to obtain the therapeutic effect desired.

The "Cure Reaction"

The energy of radium emanation liberated in the body during its disintegration which excites the tissue cells, stimulating them, and making them perform their function, must necessarily give some shock. This shock constitutes the "cure reaction." The reaction is most marked about the fourth or fifth day. Pesnel (8) states that this is due to an accumulation of the emanation in the body as it requires four days for the emanation to reach its half way period of disintegration. While it has shown that the emanation is quickly eliminated from the body after its administration, there is a certain amount retained in the body, especially that held by the lipoid tissues. Since the effects of the emanation come only from that undergoing disintegration, if daily doses are given, the accumulation of emanation undergoing disintegration will reach its height on the fourth day, after which further doses will simply maintain the saturation, because the disintegration will balance the added value.

It seems likely, too, that the cell activity induced by the emanation reaches its greatest intensity by that time and adds to the symptoms or "cure reaction" noted. Continued use of emanation causes continued cell stimulation of course, but the elimination of accumulated waste products has been accomplished and further stimulation causes only an increase of normal function. This would explain the feeling of well being that is noted after eight or ten days of treatment.

The intensity of the reaction seems to be greater in weak individuals. Contact with radio-active water may cause a violent reaction in one who is debilitated. Not infrequently a patient having such a reaction will discontinue treatment, feeling he is not being benefited, whereas if he had had proper instructions and advice from a physician who is familiar with these effects of radium emanation, he would be correctly informed and continue his treatment. The same cell stimulation takes place in vigorous persons, but the cells are sufficiently resistant so that they are not as much disturbed by the shock of the reaction. Therefore in normal individuals with a normal blood pressure the "cure reaction" is not very pronounced. A feeling of malaise with some slight dizziness is generally all that is noted.

While the reaction is at its maximum about the fourth or fifth day, it continues for some days after that. There seems to be a relation between the length of the reaction and the time necessary to establish elimination. About the fourth or fifth day there is an increased elimination of urine which contains much waste material. By the eighth or tenth day the physical and mental laziness passes off and is replaced by a feeling of well being and a desire to be more active. The urine then shows few pathologic findings.

Effects of Radium Salts

The effect on the body from radium salts are much the same at first, as those noted after radium emanation, but the late effects are much different. By taking water which contains even a very small amount of radium salts in solution, there is a gradual accumulation in the body. These salts have a special affinity for the bone marrow and the lymphatic tissues. The exeretion and disintegration of radium salts is very slow. As the life of these salts is practically endless, its half value time being nearly 1,600 years, the effects of any accumulation in the body are long continued, and lead to serious consequences. Where radium emanation causes an increase in leucocytes, radium salts produce a leucopenia, indicating a destruction of the lymphatic tissues. The red cells being more resistant are not destroyed until larger amounts have accumulated in the body. The effects of larger doses are shown in the necrosis of the jaw bones, and in the marked anemia seen in radium workers. The destructive action is also noted in the degeneration of chromaffin tissue, decreased vessel tone, and the breaking down of young and growing tissues. It is this latter effect that makes large doses of radium so useful in the treatment of tumor growths. Following the accumulation of radium salts in the body, there is a gradual failure in health, and finally a fatal outcome. This has been well shown in the case of Mr. Eben Byers whose illness from radium poisoning (9) caused so much comment in the newspapers during the past year.

From this it will be seen that there is no comparison of the results from the use of radium salts and of radium emanation. In using radium emanation, the amount present in the body is always diminishing, and at a known rate, so that proper doses can be

given and repeated according to the results obtained; whereas with radium salts, the supply of emanation is being replenished by the radium as fast as it is used up and continues for the life of radium which we have noted is nearly 1,600 years. Since the radium salts are fixed in the body tissues and cannot be eliminated when desired, it is easy to see that an excessive dosage may be given, and result in over stimulation, and finally in destruction of vital tissues of the body. It is well, therefore, to recognize that water containing radium salts in solution in appreciable amounts can have a dangerous effect, whereas radium emanation can be employed for a long period of time without any serious or dangerous after effects. I wish to emphasize this very strongly in view of the apprehension and misunderstanding that have arisen about the effects of radio-active spring waters.

Indications for Radium Therapy

Since we have seen that radium emanation has a powerful effect, its use would be indicated in certain types of bodily disorders. The conditions most benefited are those disturbances due to toxemias either bacterial or metabolic in origin. This includes such conditions as chronic malaria, chronic arthritis or rheumatic joint disorders, chronic nephritis, chronic skin diseases, syphilis, and cardio-vascular disease. Advanced chronicity of any of the diseases of faulty elimination serves as an indication for radium therapy. Arthritis in all forms does well with this type of treatment, especially when other measures are used to build up the general health and to remove the foci of infection. It should be remembered that a focus of infection often initiates a general metabolic disturbance that does not improve with its removal; and that other measures, such as radium therapy which stimulates the cell metabolism to increased activity, are therefore indicated.

While practicing in Hot Springs, I have had an opportunity to observe the effects of the baths, and of the drinking of these natural radio-active spring waters, and to note the role that the radio-active properties play in the results that are obtained.

Composition of the Hot Springs, Arkansas Thermal Waters

The thermal waters of Hot Springs, Arkansas, come from 47 springs located at the base of Hot Springs mountain. The temperature ranges from 102 degrees to 147 degrees, most of the springs having a temperature from 135 degrees to 145 degrees. The temperature of the collected waters in the reservoir remains practically constant at 141 degrees. While there are some slight variations in the amounts of mineral matter, the average mineral content is around 280 parts per million. The larger percentage of this is made up of the carbonates and sulphates of calcium and magnesium with smaller amounts of the potassium and sodium salts and silica. There are also gases contained in the water; nitrogen 8.8 cc., oxygen 3.8 cc., and carbon dioxide 1.9 cc. per liter (10-11).

All of these springs have been found to be radio-active, though varying in degree. These tests were first carried out several years ago by Professor Bertram Boltwood (12) of Yale University at the direction of the Secretary of the Interior. Samples of water from the various springs were carefully collected and tested as to the degree of radio-activity. One spring (Imperial, 70 c) was especially active, testing 9.03 millimicrocuries per liter (256.6 uranium units, or 24.8 mache units). Others ranged from 0.11 to 3.31 millimicrocuries per liter. During the past year Herman Schlundt (13), Profesor of Chemistry at the University of Missouri, has been studying the radio-active properties of these thermal springs. Since the spring waters are now collected in a common reservoir before distribution to the various bath houses, he made tests on the water from the reservoir. Tests were taken each day for a time to determine whether there was any variation in the radio-activity. It was found that the activity of the waters remained fairly uniform. As determined by an average of these tests, the activity of the composite waters of the springs was 0.45 millimicrocuries per liter (1.24 mache units). This corresponds favorably with certain well known European springs.

Chomel, Vichy, France, 0.65 millimicrocuries.

Sprudel, Karlsbad, 0.16 millimicrocuries.

Koehbrunner, Weisbaden, 0.43 millimicrocuries.

Schlundt states that this value for the composite waters in the reservoir is somewhat below the normal or initial value of the waters fresh from the springs due to some loss of the emanation during the period of storage. Both

examinations showed that the radio-activity of the water was due to radium emanation and not to radium salts in solution. As has been stated, this is an important differenee in view of their different effeets on the body.

The waters from the springs are carefully colleeted in elosed reservoirs and delivered to the various bath houses in tight insulated pipes to prevent loss of heat and radio-aetivity by exposure to the air. The total volume of water from the springs is estimated at 800,000 gallons in 24 hours. The colleeted waters are impounded for sueh a short period of time that no material variation is noted from the waters fresh from the springs.

Application of the Thermal Waters

There are 19 bath houses in Hot Springs, whieh are eompletely equipped for the hydrotherapeutie applieation of these thermal waters. These bath houses are the equal of any in this eountry and those of the eontinental European spas. The method of applying the water eonsists mainly in a full tub bath, followed by a vapor, douches or sprays, hot paeks, and a shower. During the bath the hot water is taken internally.

1. Baths. A full tub bath is given with the water at a temperature ranging from 96 to 100 degrees, and for a duration of 5 to 20 minutes. The question has been raised as to how much effeet the water may have when one bathes in it instead of taking it internally. Careful experiments were made by Gudzent and Neumann (14), who showed that only a small quantity of radium emanation is absorbed through the skin, but even supposing none were absorbed, we know that the skin is penetrated by the various rays whieh are given off by the emanation that is held in solution. It is this penetration that explains some of the therapeutie aetion due to the radio-active prineiple of the water. Baths have the advantage of bringing the skin in direct eontact with the emanation, and in the fresh radio-aetive spring water these rays are continually brought to the whole surfaee of the body, so that a eonsiderable dose may be absorbed during the time the individual is in his bath.

2. Vapor. In the applieation of the waters by means of vapors, the patient is inelosed in a tight eabinet into whieh the vapors from the hot waters are introduced. The eabinets are of two types, those with the head in, and those with the head out of the eabinet. The former is important in a eonsideration of radium emanation, as the patient breathes in the emanation in the vapors from the water. It is similar to the emanatoria of the eontinental spas. The emanation being a gas is absorbed through the lungs, but it is as quiekly exereted when the patient leaves the eabinet. However, as noted previously, a eertain portion is retained in the body, especially in the lipoid tissues, and is effective during its disintegration. It seems likely that eonsiderable absorption of the emanation takes plaee by this method.

3. Hot Packs. In this applieation towels are saturated with the hot water and are applied to parts of the body as hot as eomfortably borne. It is doubtful whether there is much, if any, absorption of emanation by this method. It has its greatest value in the loeal stimulating effeet on the eireulation.

4. Douches and Sprays. It has been observed that agitation of radio-aetive waters eauses the emanation to be given off more rapidly. Therefore it is likely that the patient reeeiving a spray or shower of radio-aetive water will breathe in a eertain amount of emanation during this applieation.

5. Drinking the Water. While the patient is in the tub and paek, he is given definite amounts of the hot water to drink. This permits the administration of larger amounts of radium emanation, and adds to the effeets of that absorbed during the other proeedures of the bath.

If it is admitted that radium emanation which is dissolved in water is benefieial, why would not drinking of water whieh has been exposed to radium be just as good as the natural radio-aetive spring water. Why eould not one take water that has been artificially made radio-aetive, and have just as good results as by eoming to Hot Springs for treatment? The answer is that if only the effeets that are due to the radio-aetive prineiple are sought, and if the benefits derived from taking the baths and drinking the water here were due solely to the radio-aetive principle of the water, there eould be no advantage in eoming to Hot Springs. But the effeets and benefit derived from the Hot Springs thermal waters are not wholly due to its radio-aetive properties, but are due as well to the

careful and regulated application of these thermal waters to the body.

Heat when applied to the body in its various ways such as the hot baths, hot packs, and vapors, has a very definite and beneficial effect which is due wholly to the stimulation from the hot water itself (15). It is this effect we expect when we have our patients drink the hot water and take these baths. Collins (16) in a discussion of the radio-activity of natural waters expressed himself as being doubtful of the value of the radio-active properties of spring waters as a factor in the beneficial results obtained unless the radio-activity was above 20 millimicrocurries. However, Burt (3), Ramsey (17), and Falta (4), report good results from small repeated doses of radium emanation and it is the opinion of the physicians of Hot Springs that the mild radio-activity of these thermal waters gives an additional advantage in their therapeutic application. We feel fortunate in having this benefit to add to the effects that are obtained by the proper use of the hot water itself. Singer (18) found that radio-activity combined with heat acts far more quickly and intensively than radio-active preparations used at ordinary temperatures, thus accounting for the greater benefits obtained from bathing in natural hot radio-active spring waters. Burt (3), in emphasizing the therapeutic action of radium, states that one does not deny the beneficial action of the hydrotherapeutic effects of simple water, but just as ultra-violet rays are the important factor in the effects of heliotherapy, so radium emanation is perhaps the chief therapeutic agent of natural waters.

Results from the Use of the Thermal Waters

It has been noted radium emanation has certain definite effects on body functions, that there is a general stimulation of the circulation, an increase in metabolism, an increase in the elimination of waste and toxins, an improvement in the blood with an increase in leucocytes, an increased tone of the nervous system, and a stimulation of the vital energy of the cells of the various tissues and organs of the body. Surely with this effect we should see beneficial effects in conditions of faulty elimination, impaired circulation, anemia, and decreased nervous tone. Such results have been obtained.

A large percentage of the patients coming to Hot Springs now are suffering from arthritis or chronic rheumatic disorders. Many of these are completely relieved, and the large majority are improved. It is surprising at times to see the rapidity with which these cases improve, to note the reduction in the swelling of the joints, and the decrease in the stiffness and soreness in the muscles and ligaments. The relief from pain is often very striking. I realize, of course, that there are some advanced cases with low vitality and exhausted bodily resources who do not seem to obtain any benefit. Some do not remain long enough to get the best results. One cannot expect chronic joint changes of years duration to be cleared up with a course of 21 baths. It generally requires a long time with rest periods between courses of baths, and in addition competent medical supervision with proper attention to foci of infection, proper elimination, building foods, and manipulative exercises to aid in bringing about the recovery of these patients. The early stages of infectious joint diseases as well as the associated rheumatic disorders, neuritis, neuralgia, and muscular rheumatism are also benefited.

In gout the results are equally striking. There is a decrease in the swelling and discomfort, due to the stimulation of the purin metabolism and the increased elimination of uric acid salts. This agrees with the results observed by Burnham (19) who found that the action in many cases, if not in every case, was a favorable one.

In such conditions as chronic malaria and chronic nephritis in which there are toxins and waste products retained in the body, the action of the radio-active water has proven very beneficial. There is an increased activity of the kidneys and a general stimulation of the body functions, so that the waste products are rapidly eliminated.

Cardio-vascular disorders, especially those associated with hypertension, are often greatly relieved. There is a relaxation of vasomotor spasm, especially in the peripheral circulation which allows the blood pressure to fall and in this way the heart is relieved of the extra burden it has been carrying. Regulated baths have a tonic effect on the weakened heart muscle, and bring about a more normal muscular tone.

The blood making organs are also stimulated as seen by the increase in red cells and in their hemoglobin content. The increase in leucocytes also gives increased resistance to infections. Patients with secondary anemia are therefore greatly benefited.

In nervous conditions, small doses of emanation have a pronounced sedative and anodyne action. Nervous restlessness and sleeplessness are often greatly benefited. Large doses, however, have the opposite effects, indicating the need of medical advice in employing these baths for nervous disorders.

When radio-active waters are taken by mouth there is a stimulation of the digestive ferments. Due to this effect, beneficial results have been obtained in catarrhal conditions of the stomach and bowels, as well as in the liver and gall bladder disturbances. Absorbed and distributed through the body, a more normal function of the ductless glands is the result.

Another interesting observation is the ability of the patient to tolerate larger doses of medicine than usual. Such drugs as iodides, salicylates, mercury, and quinine can be given in large doses, or over a longer period of time without toxic effects. This has allowed more intensive treatment to be carried out on those patients who are taking the baths.

I realize, of course, that one cannot attribute all these results that have been obtained to the radio-active properties of the water, but there is no doubt that results are achieved here that cannot be duplicated elsewhere with ordinary waters. While the claims for radium emanation have been exaggerated at times, one has only to observe the results that have been and are now being obtained here to overcome any skepticism he may have in regard to its value.

Summary

1. Radium therapy in the form of radium emanation has a stimulating effect on cell metabolism and in fostering the vital energy of the body cells.

2. There is a marked difference in the results from the use of radium salts and radium emanation. The emanation has no dangerous after effects and can be used for a long period of time without serious consequences.

3. Radio-activity gives an additional benefit to the various hydro-therapeutic applications of thermal waters.

4. Chronic inflammatory disorders and those resulting from faulty elimination are especially benefited by its use.

5. Repeated small doses of radium emanation give the best results.

6. The thermal waters of Hot Springs, Arkansas, are radio-active due to the presence of radium emanation in solution.

7. The proper and regulated application of these spring waters is the essential factor in the beneficial effects that have been observed. The radio-activity facilitates or adds to the results obtained.

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DISCUSSION

DR. E. A. PURDUM, Hot Springs: Dr. Scully has given you a compilation of the knowledge on the subject of radio-activity of waters not only in Hot Springs but throughout the world. He has spent much time in concentrating these facts, giving you deductions which have been brought to us from time to time but not in such form that we might easily assimilate them. As he said, we have watched the effects of Hot Springs' waters through many years. We have known of certain results being obtained. We have given you from time to time the best knowledge we have.

The chief point which he emphasized is the fact that the effect of radium emanations upon the body is quite different than that of radium salts. About ten years ago the use of radium salts in the treatment of certain cases of arthritis particularly was advocated. At that time we gave a good many doses of certain radium salts intravenously. Fortunately we never had any bad results; probably we never gave any one patient enough to produce bad effects, but that was very likely more accidental than due to the knowledge we had. At this time, with the increased knowledge of the chemists, we know that radium emanations in certain places throughout the world give definite effects, and we get results which are not obtained by any other means we have, and these effects are not injurious. They are somewhat lasting. As he told you the cumulative effect during the first few days is such that the maximum radium reaction is not reached for a moderate length of time, after which your patient has established a certain liking for the radium emanation effect and this may be maintained almost indefinitely. The use of radium salts or the introduction of radium into the water trying to produce a similar effect has been tried in many ways, and sometime ago it was found out that you could not buy radium and charge the water and give this effect. In fact, injurious results have followed the use of radium in such manner by the layman.

It seems now that we have at last brought to life the main effect in getting results from radio-active waters. Ten or fifteen years ago, certain very learned chemists and physiologists were trying to decide whether Hot Springs should have an appropriation for the further study of the waters. They were contending that the water was not worth studying, that no good could be obtained from the spending of seventy-five or eighty thousand dollars by sending a group here to do this work. The learned Dr. Howell, of Johns Hopkins University who was at the conference in Washington, remarked at that time, that you cannot always judge why the effect of certain productions of nature are such as they are, but you are able to prove that you can get results. For the time being we do not have proof as to why they are produced. This was learned even before the days of colloidal chemistry or the study of crystalloids and the breaking up of the atom, from the fact that certain individuals could go to Iron Springs, for instance, and get an effect for the correction of various forms of anemia far beyond what could be explained by the iron content of the water that they might be taking. Of course, later chemical work has explained this by the different combinations that the elements may form in the spring waters. I believe, as I stated at a meeting in Fayetteville some years ago, that we have an effect from radium emanation, of which we know a great deal but still have much to learn. I believe it will also be evident in the future that this radium emanation works in conjunction with other chemical processes with which we are yet unfamiliar.

In summarizing, I will again state that the best point and the chief point which Dr. Scully brought to you is the difference in the effect of radium emanations and radium salts.

DR. HOWARD P. COLLINGS, Hot Springs National Park, Arkansas: I want first to congratulate Dr. Scully on his very excellent paper. He has by a great amount of painstaking work recorded up to date information that is extremely valuable to us all.

I had the advantage of reading his paper, prior to this meeting, otherwise it would have been impossible to have secured many of the finer points which it contains. I am sure that each of you will delight in studying the article when it is printed. Without more than mentioning the scientific data he has given us in describing the properties of radio-active emanations; how radio-activity is imparted to natural mineral waters and the length of time it takes for the emanation to be completely broken up, I shall pass on to a brief discussion of its application in mineral baths such as we have here.

Dr. Scully rightly says that observation shows that radium emanation has a powerful influence on the human body. Those of us who have the opportunity of observing this can vouch for many evidences of its influence.

I might mention that we have known here since 1905 that the application of radio-active water will cause a rise of body temperature. With the colloboration of Doctors Minor, Drennen and Holland and under the supervision of a trained nurse, I had twenty tests made on thirteen different patients, not many to be sure. In these tests all patients were placed in the bath at a temperature of 96 degrees F. for five minutes which was then raised to 98 degrees F. for five minutes more. These tests showed an average rise of 6-10 of a degree. My comment in this connection at that time will suffice now, viz: "This evidence of the activity of the waters means much to us in the way of its therapeutic administration. With present knowledge we can only account for its heat-producing qualities by the decided radio-activity of the water which it was recently shown to possess by experts employed for that purpose by the U. S. Government."

To add to the statements by Dr. Scully that there is an unquestioned increase in cell activity which continues for a considerable time after a period of the baths here I would say, that for twelve years I did as much follow-up work as I could to determine that point. That is, in all cases of arthritis and neuritis I asked patients to report by mail the effects one month to six weeks after their arrival home. As all patients cannot remain as long as we think they should I did this to determine as nearly as possible what results might be expected after "the Cure," even though often there did not seem to be much improvement upon leaving. It was decidedly satisfactory work and I am going to refer to one case that was odd and a little unusual. In a routine examination of a large healthy looking man I discovered a very large patch of chronic eczema on the outer side of the forearm. The skin was thickened to at least one-sixteenth of an inch above the surrounding skin. Of course I wanted

to prescribe local remedies and did so under protest for he said that he had been treated by the best skin specialists without help. When he came to leave he showed me the large patch and with an "I told you so" expression said it was no better. Well it wasn't smaller in circumference but I thought was less thickened. Without request he wrote me about two months later to tell me that the lesion had entirely healed. Nothing but increased or rejuvenated cell activity, as well as the increased body functions that Dr. Scully has so well called to our attention could have been at the bottom of this cure.

I thank you.

DR. SCULLY, in closing: I wish to emphasize the fact that Dr. Purdum mentioned, that there is a marked difference in the effects of radium emanation and radium salts. The spring waters here are radio-active, due to the presence of radium emanation. No extravagant claims are made on account of this radio-activity, but it is felt that it does add additional benefits to the proper application of the spring waters here.

KANSAS CITY SOUTHWEST CLINICAL SOCIETY

Spring Medico-Military Symposium General Hospital, Kansas City, Missouri, March 12-17, 1934

The regular spring meeting of the Kansas City Southwest Clinical Society will be held the week of March 12-17, inclusive, in the Kansas City General Hospital as a combination Clinical and Medical program in conjunction with the Seventh Corps Area of the U. S. Army.

The Military program, arranged by Lt. Col. W. Lee Hart, M. C., Medical Inspector of the Seventh Corps Area, will consist of three one-hour lectures daily. The Medical program will be presented by members of the Clinical Society from 9:00 a. m. to 4:00 p. m. daily, and will consist of clinical lectures, with patient and lantern slides demonstrations, on diseases of the heart, chest, gastro-intestinal tract and infectious conditions.

All Medical and Dental Reserve Officers attending this meeting will be given fifty (50) hours' credit for work. Naval Reserve Officers will also be given credit for attendance.

The program Saturday, March 17th, will be presented by the Kansas City Dermatological Society as a clinic demonstrating all types of syphilis.

The meeting Tuesday night, March 13th, will be under the direction of the Jackson and Wyandotte County Medical Societies with Lt. Col. W. Lee Hart and Lt. Com. Reuben H. Hunt, M. C., U. S. N., guest speakers. The meeting of the Kansas City Academy of Medicine will be held Friday evening with Dr. Charles Doan, Dept. Medical and Surgical Research, Ohio State University as guest speaker. The Kansas City Society of Ophthalmology and Otolaryngology will hold an all-day clinic Thursday, March 15th, in the General Hospital. During this meeting, Dr. W. P. Wherry, Omaha, Nebraska, and Dr. C. S. O'Brien, Iowa City, Iowa, will hold diagnostic and operative clinics.

Original Article

BLOOD STREAM INFECTION*

H. E. Mobley, M. D., F. A. C. S.
Morrilton, Arkansas

The subject selected for discussion in this paper is not a new one; in fact, it is as old as the knowledge of medicine, known to the profession and the public as "blood poison." In my opinion it has not been sufficiently discussed and kept before the profession as it should be. It is usually recognized late and when recognized, the physician in charge of the case is usually too prone to throw up his hands and tell the family that he has a desperate case; one in which there is no use to attempt rational treatment because the ultimate result is death. The physician frequently takes the attitude that it is unnecessary to do more.

Definition: A blood stream infection means just what the term implies, that free bacteria are present in the blood. Sapremia on the other hand means a local infection from which toxins are absorbed. I know of no more simple way to differentiate these two conditions; however, one is very often mistaken for the other.

The organisms causing blood stream infection are usually the more common, such as streptococcus, staphylococcus, colon bacillus, pneumococcus, etc. The predisposing causes are a small scratch or cut, miscarriage, neglected focal infection, labor, etc.

The symptoms of this condition are usually suggestive of the diagnosis. Ordinarily, there is a history of an injury, a miscarriage, labor, or some other predisposing cause of four or five days duration. There is a chill or a rigor followed by an extremely high rise in temperature. There are usually two to three chills with a rise and fall of temperature each twenty-four hours.

Urinalysis: The urine is clear unless the genito-urinary tract happens to be the point of focal infection. The specific gravity is within normal limits, but albumen and casts are usually present.

Blood: The white blood count ranges from 12,000 to 40,000. The differential count will show a marked increase in juvenile cells. To

*Read before Conway-Pope-Yell County Medical Society, Atkins, Arkansas, September 14, 1933.

clear up the diagnosis and to determine the type of organism responsible, it is necessary to run a blood culture, and this should be done immediately in all cases of suspected blood stream infection. In my opinion, there is no condition that calls for such sound judgment in outlining a rational treatment and which taxes the skill of the attending physician as does blood stream infection. A few hours delay in making the diagnosis and instituting treatment may mean life or death to the patient. Rubbing the patient with alcohol or lotions, the administration of internal medication to combat the infection is wasted energy on the part of the attendant and the patient. Supportive medication, rest and quiet are absolutely necessary.

The diet should be nourishing and easily assimilable. Fluids should be given freely by mouth if the patient is able to take them, also intravenously. For intravenous medication I prefer 750 cc. of a 5 per cent glucose solution given once or twice daily. The most important step in the treatment is blood transfusion, giving 500 cc. at a time, and as often as every day if the condition of the patient is desperate enough to require it. Numerous serums advocated by physicians and drug houses as having merit and curative properties have been placed on the market for these cases, but it is my experience, with possibly a few exceptions, that they are of very little value in the treatment of blood stream infection.

Prognosis: The death rate of blood stream infection is very high and the prognosis should be always guarded. The gravity of this disease makes it more important to differentiate between it and sapremia because a removal of the focal infection in a case of sapremia will cure the case.

I wish to report two cases that came under my care in the past eight months, demonstrating the usual run of these cases.

Case No. 1: Several of you are familiar with this case. Child four years old, male, was admitted to the hospital December 27, 1932. Some three or four weeks previous to admission to the hospital he had influenza from which he had recovered. About one week before admission the attending physician was called to see him again because of a swollen jaw. On examination he found an abscessed tooth and a dentist was called in, but advised against removing tooth. The condition continued to involve more tissue and more teeth. An eye, ear, nose and throat specialist was then called in. He immediately told them there was nothing he could do and the patient was sent to the hospital where the attending physician, the dentist, the eye, ear, nose and throat specialist and I held a consultation. A working diagnosis of blood stream infection was made, later confirmed by blood culture. The focus of infection was cleaned up as best as could be.

I wish to go into detail with the temperature curve in this case because I think it is typical. At admission, the 27th, the temperature was 107 4-10, gradually declining in the following twenty-four hours to reach 100 degrees at midnight of the 28th. It then reached 109 2-10 degrees with a fall to subnormal during the next twenty-four hours. There were three chills and three subsequent rises of temperature to a 105, 108, 105 6-10 degrees, respectively, in the following twenty-four hours. During the next four days there was a similar temperature curve with the exception that normal was not reached at any time. The patient died on the fifth with a temperature of 107 degrees. This patient received four blood transfusions as well as the other routine treatment.

Case No. 2: This patient was admitted to the hospital February 8, 1933; female, married, 29 years of age, white, with history of missed menstrual period December 10, 1932. Menstrual flow had been on during the month of February and at times there was severe hemorrhage. A history of personal interference with the pregnancy was obtained a few days after admission to the hospital. Immediately after admission to the hospital the uterus was cleaned out but instead of getting a fall in temperature as was expected, there was a continued rise during the next twenty-four hours, with the highest temperature 105 degrees and the lowest 103 6-10 degrees. We then suspected blood stream infection and did a culture which was positive. This patient's temperature ranged from 101 to 105 degrees each day during the next thirteen days with one to three chills and distinct elevation of temperature each twenty-four hours. On the fourteenth day the temperature came down gradually and reached normal, but on the fifteenth and sixteenth days there was a slight elevation of temperature. On the seventeenth day she was discharged from the hospital.

Personal and News Items

Dr. S. A. Thompson, formerly of Stephens, has associated himself with Dr. J. B. Jameson of Camden for the practice of internal medicine and diagnosis.

Drs. Geo. F. Jackson and A. C. Kirby were recently appointed Chiefs, Department of Dermatology and Pediatrics, respectively, on the staff of Saint Vincent's Hospital.

The following county societies have submitted paid memberships for 1934 equalling or exceeding their membership in 1933: Carroll, Clay, Cleveland, Columbia, Conway-Pope-Yell, Craighead-Poinsett, Crawford, Cross, Greene, Hempstead, Howard-Pike, Johnson, Little River, Monroe, Nevada, Searcy, Sebastian, Sevier and White.

The State President is prepared to continue in office as president of a medical society when his term of office in the Arkansas Medical Society expires. The Missouri Pacific Hospital Association elected L. J. Kosminsky president at the meeting held in Memphis on January 27th.

ERRATUM

In error, the captions for the figures illustrating the artiele "Lymphogranuloma Inguinale: Preliminary Report of Two Cases from Arkansas" by D. W. Goldstein and L. T. Byars, Fort Smith, were reversed in the February issue of The Journal.

The following attended the intensive clinieal course in opthalmology conducted by Prof. Anton Elschnig, of Prague, Czeckoslovakia, at Memphis, February 9th to 12th: R. J. Calcote, K. W. Cosgrove, R. C. Kory, Little Rock; R. R. Kirkpatrick, A. H. Mann, T. E. Fuller, Texarkana; A. W. Cox, Helena; A. A. Hughes, Pine Bluff· J. A. Saliba, Blytheville; L. Gardner, Russellville; L. M. Henry and E. C. Moulton, Fort Smith.

The following committees from Pulaski County Medical Soeiety have charge of arrangements for the coming State meeting:

General Committee: Geo. J. Jackson, chairman; M. J. Kilbury, Clyde Rodgers.

Entertainment Committee: Paul Mahoney, chairman; C. C. Reed, K. W. Cosgrove, Bryce Cummins, B. A. Bennett.

Dr. H. King Wade, Hot Springs National Park, was elevated to the position of President-eleet at the 1934 meeting of the Mid-South Post-Graduate Assembly held in Memphis, February 13-16. Dr. Ira Ellis, Monette, was elected viee-president for Arkansas. This was one of the most successful meetings this organization has held, well over one thousand physicians being registered.

The Journal salutes Dr. William R. Hunt, Clarksville, who completes fifty years of active praetice on March 15th. Graduating from the Medical Department, Arkansas University, on March 3, 1884, he began the practice of medicine at Coal Hill on March 15, 1884. He moved to Clarksville January 1, 1906. He enjoys the distinction of having fifteen fractured femurs under treatment at one time and also of having six bilateral compound Pott's fracture in his care at another; a record in civil practice.

Dr. J. A. Burks, Benton, convinced two would-be highwaymen of the error of their ways the morning of February 7th. Noticing a ear parked across the road while returning from a call, Dr. Burks suspected a hold-up and stopping his car, stepped out and emptied his gun at the pair. They climbed into their car and drove away.

On the night of January 19th, Dr. C. W. Jones, also of Benton, was kidnapped and robbed of his car while answering a fake call.

Recent publieations of Arkansas physicians include: "Cesarean Section with a Suggested Inerease in Its Indications," by D. E. White, El Dorado, in the Tri-State Medical Journal for January, 1934; "Observations on the Etiological Relationship of Severe Alcoholism to Pellagra," by H. F. DeWolf, Little Rock, in the Oetober, 1933, American Journal of Medical Sciences; and "Appendicitis and Appendicosis: A Study of 500 Consecutive Cases Without Coneomitant Disease," by Dewell Gann, Jr., Little Rock, in the January, 1934, issue of The Missisippi Doctor.

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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

ANNUAL MEETING—LITTLE ROCK
April 16, 17 and 18, 1934

The Fifty-ninth Annual Session of the Arkansas Medical Society will convene at the Marion Hotel, Little Rock, on the above dates. All sessions of the society will be at the hotel except the open meeting the first evening. This meeting, which is open to the public, will be at the Little Rock High School Auditorium and will be addressed by Dr. Morris Fishbein, Editor of The Journal of the American Medical Association. This will be Dr. Fishbein's first official visit to Arkansas and the members welcome the opportunity to hear this forceful speaker and in particular, to present him at an open meeting.

The invited guests are men of distinguished reputation: Oscar W. Bethea, Professor of Therapeutics, Tulane University; E. D. Plass, Professor of Obstetrics and Gynecology, Iowa State University; John Shea, prominent otolaryngologist of Memphis; E. W. Bertner, Houston; O. B. Zeinert, Chief Surgeon, Missouri Pacific Hospital Association, St. Louis; R. M. Klemme, St. Louis; and L. M. Unterberg, Associate Professor of Neurology and Psychiatry, Saint Louis University. In addition to the address at the public meeting, Dr. Fishbein will speak to the general session at the opening meeting. Approximately fifteen papers will be read by members of the society, of which three relate to recent advances in medicine, surgery and obstetrics and gynecology. This innovation for the 1934 session will afford the busy practitioner a review of the important developments in these branches which have occurred in the past year.

The scientific exhibit will have several interesting presentations by Arkansas physicians and in the commercial exhibit will be shown the products of a number of manufacturers. Entertainment of visiting physicians and their wives will be amply provided for on all three days. This year a banquet for the members and their wives will precede the President's Ball.

The annual meeting offers every advantage for increase in our store of medical knowledge and the pleasure of renewing old friendships and the making of new ones in the friendly social intercourse that is always an attractive part of our meetings. It is hoped that a large majority of the members will attend this meeting and avail themselves of these privileges.

Proceedings of Societies

The Pulaski County Medical Society held two regular and one special meeting during the month of January. On January 8, the following program was rendered:

Scientific subject: Round table discussion on "Gonorrheal Infection in Males."

1. "Modern Trend on Treatment of Gonorrhea of Males"—Dr. G. W. Reagan.
2. "Treatment of Acute Gonorrheal Prostatitis"—Dr. H. Fay H. Jones.
3. "Treatment of Chronic Gonorrheal Prostatitis"—Dr. T. D. Brown.
4. "Treatment of Periurtheal Abscesses"—Dr. A. R. Russel.

There were fifty-three members present with one visitor.

On January 18, a special meeting was held to hear Dr. Wm. Alton Osehner, head of the Surgical Department at Tulane University, New Orleans, Louisiana, speak on "Acute Cranio-cerebral Injuries." There were sixty-three members present, eleven visitors and thirty members of the senior class of the University of Arkansas School of Medicine.

On January 22, Dr. Reland Klemme, assistant professor of Clinical Neurologieal Surgery, Washington University School of Medicine, St. Louis, Missouri, spoke on "Diagnosis and Treatment of Brain Tumors." There was an attendenee at this meeting of sixty-nine members of the society, eight visitors and thirty-two seniors from the University of Arkansas Sehool of Medicine.

All three programs were very strong and with much favorable comment upon them.

E. H. White, M. D., Secretary.

The Boone County Medical Society met December 12th with Drs. D. E. Evans, D. L. Owens, T. P. Fowler, J. H. Fowler, J. G. Gladden, G. K. Sims, J. C. Blackwood and W. H. Poynor present. The following officers were eleeted to serve during 1934: President, D. L. Owens, viee-president; D. E. Evans; secretary-treasurer; W. H. Poynor, delegate; W. H. Poynor, first alternate, J. G. Gladden and second alternate, G. K. Sims.

W. H. Poynor, Secretary.

Sebastian County Medical Society met February 13th with Dr. Paul Mahoney, Little Rock, as guest speaker, presenting "Hoarseness as a Symptom." Dr. H. W. Hundling, Little Rock, was a visitor. Drs. L. M. Henry and J. C. Ogden were admitted to membership.

The Pulaski County Medical Society had the following program on Monday evening, February 15th:

"Addison's Disease" by Dr. A. L. Jobe.

"Pathology of Addison's Disease" by Dr. S. F. Hoge.

Discussion by Dr. F. W. Carruthers and Dr. H. W. Hundling.

Dr. George F. Jackson, chairman of the State Entertainment Committee, reported splendid progress on entertainment for the State Medical Society meeting on April 16, 17 and 18.

There were forty-five members and three visitors present at this meeting.

The program on February 19th was well attended by local members of the society and by eight members from the Lonoke County Medieal Socicty.

The following subjects were discussed by the society:

"Physiology of Hypertension" by C. H. McDonald, D. Sc., Professor of Physiology in the University of Arkansas School of Medicine.

"Pathology of Hypertension" by Dr. H. S. Thatcher, Professor of Pathology in the University of Arkansas School of Medicine.

"Treatment of Hypertension" by Dr. L. F. Barrier.

E. H. White, Secretary.

OUACHITA COUNTY

(Reported by R. B. Robins, Sec.)

The annual ladies' night meeting of the Ouachita County Medical Society was held Thursday night, February 1st, at the Orlando Hotel in Camden. A delightful banquet preceded the following program:

Address—Dr. W. R. Brooksher, Secretary, Arkansas Medical Society.

Address—Mrs. B. A. Rhinehart, President, Woman's Auxiliary, Arkansas Medical Society.

Address—Dr. Frank Vinsonhaler, Dean, Medical Department, University of Arkansas.

The Mississippi County Medieal Society met at the Blytheville Hospital February 6th for the following program:

"Early Recognition of Disturbances of Coronary Circulation"—Whitman Rowland, M. D., Memphis.

"Atypical Hyperthyroidism"—J. A. Crisler, Jr., M. D., Memphis.

Members present: C. M. Harwell, W. J. Sheddan, T. F. Hudson, W. M. Owen, J. L. Tidwell, R. L. Johnson, J. T. Polk, F. L. Husband, J. A. Saliba, A. M. Washburn, C. C. Stevens, P. L. Tipton, S. P. Martin, M. O. Usrey and F. D. Smith. Drs. J. A. Crisler, Jr., and Whitman Rowland, of Memphis; Hoyt McDaniel and Chapman, Steele, Mo., and Lawrence Cooper, Cooter, Mo., were guests. After adjournment refreshments were served by the hospital management.

F. D. Smith, M. D., Secretary.

St. Francis County Medical Society met at Forrest City February 12th, with L. J. Kosminsky, State President, speaking on "Medical Organization."

Resolutions

At a regular meeting of the Howard-Pike County Medical Society, held at Nashville, January 4, 1934, the following resolution was unanimously adopted:

Whereas, the United States Government has, through the RFC, the CWA, the FERC and other agencies, put on a program for the relief of its people by furnishing them food, clothing, medicine and other necessaries of life, and

Whereas, it is paying for all work rates above the average usually paid for such work, including thousands of so-called relief directors, who employ chauffeurs to drive them over the country and clerks to do their work, all at government expense; and

Whereas, the relief offices of our country are filled with highly-paid workers; and

Whereas, food, medicine, clothing and other necessaries of life are furnished the so-called needy, and paid for by the government at current prices; and

Whereas, the government is furnishing the county nurses with assistants and stenographers; and

Whereas, all the expense of this must be paid for by the taxpayers of this country, and feeling that the physicians of this country pay taxes above those of the average taxpayer; and

Whereas, no class of citizens has been more patriotic during this depression than the medical profession, having practically bankrupted itself in the attempt to carry on and help their patients; and

Whereas, these relief directors now have the effrontery to ask the medical profession to render service at less than the actual cost of doing the work; Therefore,

Be It Resolved by the members of the Howard-Pike County Medical Society, that we will render such services only, and if, we are paid by these relief agencies, the regular fees we would charge individuals for the same services, as shown by our regular fee bill.

(Signed) W. B. Simpson, M. D.,
President.
J. L. Roberts, M. D.,
Secretary.

The Merck Institute of Therapeutic Research, Rahway, New Jersey, announces the appointment of Dr. Eugene Maier as Chief Bacteriologist.

Dr. Maier is a graduate of the University of Tuebingen, Wuertemberg, Germany, and completed his studies at the University of Erlangen, Germany.

Dr. Maier was associated with the Rockefeller Institute of New York as Research Assistant from 1926 to 1930. Since 1931, up to the time of becoming associated with Merck & Co., Inc., Dr. Maier has been at Bellevue Hospital, New York, in the department of pathology, as bacteriologist for the Tuberculosis Division of Columbia University.

Obituary

Dr. John V. Arrington, Blevins, died in the Cora Donnell Hospital, Prescott, February 2, 1934.

DR. T. M. MITCHELL, aged 76, a practicing physician of Rudy, Arkansas, died January 23, 1934, following an illness of several months.

SUGGESTED AMENDMENTS TO THE CONSTITUTION AND BY-LAWS OF THE ARKANSAS MEDICAL SOCIETY

By D. A. Rhinehart, Chairman.

Editor's Note—In accordance with the Constitution, the following proposed amendments are published in The Journal for the second time.

(1) Constitution, Article VIII, Sec. 2, p. 4 to be changed to read as follows:

"The place for holding each annual session shall be decided by the House of Delegates. After conferring with the President and Secretary of the society, the time for holding each annual meeting shall be decided by the Committee on Arrangements of the component society of the county in which the meeting is to be held."

(This change is suggested because it corresponds with the practice that has been followed for a number of years.)

(2) By-Laws, Chapter 1, Sec. 3, p. 7, the first sentence to be changed to read as follows:

"Each member, each member chosen as a delegate, and each guest in attendance at an annual session of the society shall register in such manner as may be provided by the Secretary, giving his name, address, and the component society of which he is a member."

(This change is also made to correspond with present practices and to permit changes as may be necessary.)

(3) Chap. 1, Sec. 4, p. 8, strike out the first word: "that." After "honorary member" in line 7 change and add "and the component society shall be exempt from payment of the annual assessment for his membership. An honorary member shall have the same privileges as other members."

The society has no dues, but it does have assessments, this change is made to clarify this section. It also better defines the status of an honorary member, and will give component societies the right to honor active physicians by such membership.)

(4) Chap. V, Sec. 1, p. 12, strike out the first sentence in this section and substitute:

"Immediately after adjournment of the first meeting of the House of Delegates at each annual session, the delegates from the component societies of each councilor district shall meet, the councilor acting as chairman, and select one delegate from each district to form a Committee on Nominations. This Committee shall consist of ten delegates, one from each councilor district. It shall meet and organize by selecting a chairman and secretary. It shall be . . ., etc."

(This change is suggested because this is the procedure that is followed in the selection of the nominating committee.)

(5) Same section, last two sentences, change "president" to "president-elect."

(6) Chap. V, Sec. 3, change the last two words "general session" to "annual session."

(This is a clarification of wording. General session is used to designate a general meeting of all members at an annual session, and not to indicate a meeting of the House of Delegates.

(7) Chap. VI, Sec. 2, a new section:

"The president-elect shall be a member ex-officio of the Council and the House of Delegates without the power of voting. It shall be his duty to assist the president in visiting the component county and the district societies, and to familiarize himself with, and prepare himself for, the performance of his duties when he shall have succeeded to the presidency of the society."

(I think this new section should be added, for as it now stands, the president-elect has no duties. Are there any others that you think of that should be given him?)

(8) Chap. VI. Change the numbering of the other sections in this chapter, Section 2 to 3, 3 to 4, 4 to 5, and 5 to 6.

(Made necessary by the addition of a new section.)

(9) Chap. VI, Sec. 3, p. 14, line 6, strike out "of the President countersigned."

(10) Chap. VII, Sec. 3, p. 17, begin this section with the following:

"The Council shall be the executive body of the House of Delegates and between annual sessions shall exercise the power conferred on the House of Delegates by the Constitution and By-Laws."

(This is already being done and this change gives authorization for it.)

(11) Chap. VIII, Sec. 1, p. 19. This whole chapter re-written as follows: Sec. 1.

"The standing committees of this society shall be as follows:

1. A Committee on Scientific Work.
2. A Committee on Medical Legislation.
3. A Committee on Health and Public Instruction.
4. A Committee on Medical Education and Hospitals.
5. A Committee on Public Relations.
6. A Committee on Medical Economics.
7. A Committee on Scientific Exhibit.
8. A Committee on Arrangements.

"Unless otherwise provided, these committees shall be appointed by the President. Each committee shall consist of at least three members. A greater number may be appointed whenever circumstances require a larger committee. As far as practicable, appointments shall be made so that the term of office of a third of the members of each committee shall expire each year. The President and Secretary shall be ex-officio members of all committees.

"Sec. 2. The Committee on Scientific Work shall consist of three members of which the Secretary shall be one. Subject to the instructions of the House of Delegates, this committee shall determine the character and scope of the scientific proceedings for each annual session. It shall prepare a scientific program for each annual session, determining the order in which papers and discussions shall be presented.

"Sec. 3. The Committee on Medical Legislation shall consist of seven members. It shall represent the society in all legislative matters pertaining to public health and medical practice. It shall keep in touch with professional and public opinion and maintain active relations with the Bureau of Legal Medicine and Legislation of the American Medical Association. It shall, at all times, endeavor to shape and guide legislation with a view to securing the best results for the whole people. It shall strive to organize professional influence so as to promote the general good of the community in local, state, and national affairs and elections. During sessions of the General Assembly, it shall keep itself informed as to the bills that are introduced, and shall inform the members of the society through its Journal or by special bulletin, to the end that legislation inimical to the medical profession and the public shall be defeated, and legislation fostering the interests of public health and medical practice shall be enacted into law."

"Sec. 4. The Committee on Health and Public Instruction shall represent the society in those affairs having for their object the improvement in public and personal health, the prevention of epidemics, and the instruction of the people. It shall maintain close relations with the Board of Health, the State Health Officer, and the various health officials, assisting in the adoption of public health programs, the enforcement of sanitary laws, and the promulgation of other health activities of interest to the members of the society. As occasion demands or when thought advisable, it shall supervise the preparation of articles of timely interest for publication in the newspapers or for broadcasting over the radio for the instruction of the public.

"Sec. 5. The Committee on Medical Education and Hospitals shall serve this State for the Committee on Medical Education and Hospitals of the American Medical Association, and shall have referred to it all questions pertaining to hospitals and medical education. It shall maintain close relations with the officials and faculty of the University of Arkansas School of Medicine, rendering at all times such assistance as it can in maintaining that institution as a Class A Medical School.

"Sec. 6. The Committee on Public Relations shall have referred to it all questions wherein the medical profession as represented by the society is called upon for advice, for participation in private or public affairs and projects not coming within the duties outlined for the other committees. It shall be the publicity committee of the society and shall have charge of all publicity issued in the name of the society.

"Sec. 7. The Committee on Medical Economics shall serve the State for the council on Medical Economics of the American Medical Association. It shall investigate all matters affecting the economic status of physicians and shall report annually to the House of Delegates such recommendations as may, in its judgment, seem proper.

"Sec. 8. The Committee on Scientific Exhibit shall solicit and collect material from institutions and individual physicians of the State that is of scientific interest. This it shall arrange and exhibit at each annual session. It should particularly strive to obtain material that will more fully illustrate the papers presented in the general meetings of the society.

"Sec. 9. The Committee on Arrangements shall be appointed by the component society of the county in which the annual session is to be held. With the President and Secretary it shall select the time of the annual session. It shall provide suitable accommodations for the meeting places of the society and the House of Delegates, the scientific exhibit, the committees, and shall have general charge of all arrangements. Its chairman shall report an outline of the arrangements to the Secretary for publication in the program and shall make additional announcements during the session as occasion may require.

(12) Chap. IX, Sec. 6. At the end of line 3 add "censoring;" at the end of the section add "A County Society shall at all times be permitted to appeal or refer questions involving membership to the Council of the State Society for final determination.

"That the Council may be aided in rendering just decisions, it is necessary that the By-Laws of each component society provide in detail the routine to be followed in preferring charges and trying any member accused of and tried for any kind of unprofessional conduct."

(13) Chap. IX, Sec. 8, p. 24, change as follows: "When a member in good standing in a component county society moves to another county in this State, he shall be given a written certificate of these facts by the Secretary of his society, without cost, for transmission to the Secretary of the society in the county to which he moves. Pending his acceptance or rejection by the society in the county to which he removes such member shall be considered to be in good standing in the county society from which he was certified and in the State Society to the end of the period for which his dues have been paid."

The following resolution was unanimously adopted by The Southern Medical Association at its twenty-seventh annual meeting, Richmond, Virginia, November 17, 1933:

Resolution for the President of the United States of America

The Southern Medical Association, with a membership which makes it the second largest medical society in the United States, at its annual meeting held in Richmond, Virginia, November 14-17, 1933, passed the following resolution:

Inasmuch as its members very generally were in service during the Great War, it is deemed proper to give expression to our views regarding medical problems which might be the outcome of that event.

Further, we are deeply interested in the progress of the science of medicine and are concerned in the application of this knowledge, so that the science and the art in medicine shall be preserved and advanced in the interest of all.

Therefore, we commend the policy and activity of the American Medical Association, opposing free hospitalization and free medical care on the part of our government for veterans with non-service-connected disabilities, and we also wish to commend the Nation's President's economy program as announced by him regarding this question. We earnestly oppose any serious effort to revert to the method which has grown up, whereby non-service-connected disability claims were allowed, burdening the government with ever-increasing costs for hospital building and free medical care.

(Signed) Edward H. Cary, *Chairman*,
Hugh Leslie Moore,
Elbert Dunlap,
Committee.

Auxiliary Page

Mrs. D. W. Goldstein, Publicity Secretary, 616 North Greenwood Ave., Fort Smith

The Executive Board of the Woman's Auxiliary of the Arkansas Medical Society met at the Hotel Marion, Little Rock, on Wednesday, February 15th. Reports given by all officers, State committee chairmen and county presidents attending, showed marked activity in all phases of auxiliary work.

Much discussion centered on the value of exhibits and it was planned to send both State and county exhibits to the meeting of the American Medical Auxiliary to be held in Cleveland, Ohio, in June. It was also decided to ask each county auxiliary and the chairmen of State committees to arrange an exhibit for the State meeting in April.

Plans for the annual meeting to be held in Little Rock, April 16, 17 and 18 were discussed. Mrs. Chas. E. Oates, State chairman of Convention arrangements, gave a preliminary report on the convention program and Mrs. B. A. Bennett, President of Pulaski County Auxiliary and local chairman of arrangements, outlined plans of the hostess organization for the entertainment of auxiliary members. The following were named by the State Board as members of the nominating committee: Mrs. B. A. Bennett, Little Rock, chairman; Mrs. H. E. Murry, Texarkana; Mrs. J. T. McLain, Gurdon; Mrs. Arthur F. Hoge, Fort Smith; Mrs. A. H. Tribble, Hot Springs. Following the Board meeting all members were guests at luncheon.

Members attending the meeting were: Mrs. B. A. Rhinehart, Little Rock; Mrs. William Hibbets, Texarkana; Mrs. Anderson Watkins, Little Rock; Mrs. D. W. Goldstein, Fort Smith, Mrs. Marcus T. Smith, Conway; Mrs. C. W. Garrison, Little Rock; Mrs. P. H. Phillips, Ashdown; Mrs. Chas. E. Oates, Little Rock; Mrs. J. B. Crawford, Little Rock; Mrs. L. V. Parmley, Little Rock; Mrs. J. T. McLain, Gurdon; Mrs. B. A. Bennett, Little Rock.

Mrs. L. D. Reagan, *Secretary.*

My Dear Auxiliary Members:

Convention time is drawing near and the hostess auxiliary, Pulaski County, is planning great things for your entertainment while in Little Rock. On the serious side your trip to the convention will be worth while also.

Mrs. James Blake, our National Auxiliary President, and Doctor Morris Fishbein will be our guests on April 16th and will address us in a joint meeting that night.

It is time for local committee chairmen to report their activities to the State chairman in order that they may compile their annual reports.

I am hoping to see you at the convention in April. With best wishes,

Mrs. B. A. Rhinehart, *President.*

The medical auxiliary of the Independence County Medical Society held an interesting meeting at the home of Mrs. L. T. Evans February 12th.

The valentine season was observed in decoration of the living room where the business session was presided over by Mrs. O. J. T. Johnston, president.

Reports were given by the following heads of committees: Program, Mrs. R. C. Dorr; Hygeia, Mrs. Frank Gray; Student Loan, Mrs. J. M. Hooper; Telephone, Mrs. Victoria Saylors.

A general discussion of the essay contest to be held in the colored school, when a medal will be awarded for the best paper, was held and it was decided that title of the essay should be "Three Health Points; ventilation, balanced meals and the magic fluid."

The meeting was concluded with a splendid paper read by Mrs. Dorr, "The Doctor as a Business Man."

Mrs. B. A. Rhinehart, of Little Rock, State President of the Auxiliary to the Arkansas Medical Society, was an honor guest and program speaker February 12th, at the business and social session of the Sebastian County Auxiliary. She gave a talk on "Public Health Work."

Mrs. A. F. Hoge, Mrs. W. F. Rose and Mrs. James A. Foltz were joint hostesses for the meeting which was held at the home of Mrs. Hoge.

Honoring the auxiliary presidents of their respective States; Mrs. Frank N. Haggard of San Antonio, Texas, and Mrs. Barton A. Rhinehart of Little Rock, Ark., the Woman's Medical Auxiliary to the Bowie and Miller Counties Medical Societies, entertained with a "Health Tea," at Hotel McCartney, January 26th.

Book Reviews

Diet in Sinus Infections and Colds. By Egon V. Ullman, M. D., Instructor at the First Medical Clinic at the University of Vienna; Demonstrator at the Laryngological Clinic (Prof. Hajek) at the University of Vienna, etc. Recipes and menus by Eliza Mez. Cloth. Pp. 166. Price, $2.00. New York: The Macmillan Company, 1933.

This neat little book has been brought to our desk and read with real pleasure. It is not only enlightening but entertaining and should be read by the laity, who could understand and learn much from it. The author's explanation of why a person with a "cold" is short of breath has been the means of satisfactorily explaining this very question to one of our patients. One of the more important chapters is the second, devoted to giving general advice to people suffering with colds. About one hundred and fifty recipes are given in the appendix, a valuable aid to the patient.

Infections of the Hand: A Guide To the Surgical Treatment of Acute and Chronic Suppurative Processes in the Fingers, Hand and Forearm. Sixth Edition. By Allen B. Kanavel, M. D., Sc. D. Philadelphia: Lea and Febiger, 1933.

Important additions, such as the clinical course of and treatment of atypical infections following bites, injury by indelible pencils, introduction of cattle hair in milkers, and gangrenous processes, together with a simplification of the material presented constitute the changes made over the previous edition of this important work, which has been rightly considered a masterpiece in this field of surgery. The subject matter is presented in the logical order of anatomy, localized suppurative processes, lymphangitis and tenosynovitis, complications and sequelae, with diagnostic signs, operative and post-operative treatment.

This book can be read as profitably by the general practitioner, if only for the proper treatment of paronychiae or correct placing of incisions in the finger, as by the industrial surgeon for the after care of these infections and position of function to be maintained in fingers and hand. It is therefore a book for every medical man's desk.

The Failing Heart of Middle Life. The Myocardosis Sundrome, Coronary Thrombosis, and Angina Pectoris. With a Section upon the Medico-Legal Aspects of Sudden Death from Heart Disease. By Albert S. Hyman, A. B., M. D., F. A. C. P., Cardiologist, Beth David and Manhattan General Hospitals, etc., and Aaron E. Jarsonnet, M. D., C. M., F. A. C. P., Attending Physician and Cardiologist, Newark Beth Israel Hospital, etc. With a preface by David Riesman, M. D., Professor of Clinical Medicine, University of Pennsylvania School of Medicine. Illustrated. Price, $5.00. Philadelphia: F. A. Davis Company, 1932.

This is a concisely presented discussion of a most interesting subject. The importance of preclinical symptoms as related by the patient who considers them but unimportant variations from his usual health and their proper treatment are stressed. The relation of coronary disease and angina pectoris to each other as well as their various clinical manifestations are fully covered. This volume emphasizes the fact that rational therapy may be given upon clinical observations and without the use of expensive diagnostic procedures.

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Original Article

SOME PHASES OF MASTOID DISEASE WITH SPECIAL REFERENCE TO DIAGNOSIS*

H. MOULTON, M. D., Fort Smith

At the bed side or in the consulting room any doctor may at times be confronted with symptoms suggestive of mastoid inflamation. Some of these symptoms, while usually present in cases of mastoid disease, are not always positive indications at the time of observation. It is the purpose of this discussion to review the circumstances under which these symptoms might or might not be misleading.

As a foundation for the diagnosis of mastoid disease it is necessary to keep in mind the etiology. The drum of the ear is a cavity with two openings, one leading into it through the eustachian tube from the naso-pharynx, the other leading out of it into the antrum and mastoid cells through the aditus ad antrum. Through the former the middle ear becomes infected; through the latter, infection travels from the middle ear into the mastoid cells. This is practically the only way in which mastoid disease can occur. So that, if the history and examination exclude existing or pre-existing middle ear infection, the diagnosis of mastoiditis can not be made.

Symptom 1—*Pain behind* the ear is a very common symptom of mastoid disease. Consequently a patient with pain behind the ear is frequently in fear of mastoiditis and asks for diagnosis. A normal middle ear precludes mastoiditis. This type of pain is usually reflex and at times intense. It abates and recurs after the manner of neuralgia. I recall a case in a distant state that was driven to accept a useless mastoid operation at the hands of an ignorant or unscrupulous doctor against my advice. Later the extraction of an impacted wisdom tooth completely and permanently relieved her. Such cases are not uncommon.

Symptom 2—*Tenderness* on deep pressure over the mastoid is present in a considerable number of cases at the beginning of acute suppurative inflammation of the middle ear. But if free drainage of the middle ear is established early, this tenderness disappears in most instances and should not be considered an indication of mastoid suppuration unless it persists for a week or ten days, then it becomes an important indication. This early tenderness has been responsible for many unnecessary mastoid operations.

Symptom 3—*Discharge* of pus from the middle ear during or preceding the mastoid symptoms, as has been pointed out, is usual. But a mastoiditis can develop without discharge from the middle ear in cases where the inflammatory process within the middle ear is of slow development. The drum membrane becomes thickened and bulges without perforation. The pus under pressure finds its way through the aditus into the antrum and cells. Usually, however, the discharge is profuse and watery at first, later gradually thickening in consistency and diminishing in amount. At this period development of pain and tenderness over the mastoid are indicative of mischief within the cells.

Pus discharge alone without other symptoms is an indication for the mastoid operation under the following circumstances: creamy pus pouring out of the ear in such volume that if the auditory canal is thoroughly cleaned, it fills up again in a few minutes or half an hour. Such a volume of pus can not come from the middle ear alone. If this condition persists for a week or longer the mastoid bone should

*Read before the Fifty-eighth Annual Session of the Arkansas Medical Society, held in Hot Springs National Park, May 2, 3, 4, 1933.

be opened even if other symptoms are wanting.

Symptom 4—*Swelling* behind the ear as a symptom has been left for the last because it is of relatively minor importance. If we wait for swelling to take place we have often waited too long. If it is a case of mastoiditis a diagnosis should have been made before swelling occurred. Moreover, swelling behind the ear is more often due to a furuncle in the meatus than to mastoid disease. It is more apt to precede discharges from the ear. To avoid mistakes the meatus should be carefully examined, the source of any discharge accurately determined and the hearing tested. In furunculosis, if the meatus can be opened, hearing is either not affected, or but moderately. In mastoiditis the hearing is profoundly affected. In furunculosis the swelling in the meatus is near its outer end. In mastoiditis swelling of the meatal lining, if present, is at the inner end near the drum membrane.

General Symptoms: Fever in mastoid disease is a variable symptom. It is usually not high and is sometimes absent. A range from 99 degrees F. up to 101 or 102½ degrees F. is not uncommon, varying according to age or co-existing disease. We have purposely limited this paper to the cardinal symptoms which the practitioner meets at the bedside. For him they are the only ones on which he can base his conclusions and which unless carefully considered, may lead to error and wrong advice. Laboratory and other technical methods of examination are eliminated as foreign to the purpose of this paper.

DISCUSSION

DR. F. VINSONHALER, Little Rock: In the army every once in a while they used to put us through a drill to see that we had not forgotten the Manual of Arms. Hearing the doctor's paper, I was reminded that that is still a very good thing to do; put the Society through the Manual of Arms. Most of us are in the habit of letting the laboratory man make the diagnosis for us. As we grow older we depend upon the x-ray man to locate the exact line of the diseased cells and the laboratory man makes the blood count so we can judge of the patient's condition. So, we are almost relieved of the responsibility of making a diagnosis. Therefore, a paper like this one is very useful, I think, because it puts us through the Manual of Arms again.

When Dr. Moulton and I began practicing in this State, I will not say how long ago, because the doctor may not like me to mention the number of years, though I am indifferent myself, that was about the only way we could make a diagnosis. We didn't have an x-ray; we didn't have the laboratory facilities. We made our diagnoses symptomatically in those days. Therefore, I consider this paper a very useful one, and very interesting to the general practitioner because he doesn't have those laboratory facilities or the x-ray to rely upon. I think it is a good thing that these men be reminded again of their duty as diagnosticians once in a while. I was interested very much in the doctor's paper, especially from that standpoint. I, therefore, shall not engage in any digression from the purpose of the paper, that is, to take up the laboratory findings in the usual case, or the x-ray findings; but will discuss it from the standpoint of making a diagnosis, as we did years ago, and that is the way that most of you have to make it now.

I was very much interested in his description of the cardinal symptoms of mastoiditis, and also the fact that occasionally we operate on a mastoid that is free from pus. It used to be said that if a man practiced medicine long enough he would see everything and he would have everything happen to him. I must confess that I am one of the guilty; that I have opened up mastoids that had better been left alone, and sometimes from the standpoint of perhaps not going into the subject in the way that I should have done. And yet all of us have found cases in which the cardinal symptoms were absent. We would have walking cases with the cells broken down, in which there would be absence of pain. Many of us have operated cases in years gone by in which the curette was almost unnecessary when we opened up the mastoid cells because the cellular structures had been destroyed and the mastoid was simply a large abscessed cavity. Sometimes we have found that we went in too late. Not one of us but can recall cases that bring back sorrow and regret from the fact that we didn't go in soon enough. When the symptoms of meningitis make their appearance it is too late, of course, and we find that there is not anything we can do to avoid the inevitable result. So, in the older days, and so now, the general practitioner tries to take a middle course between extreme conservatism, which is dangerous, and the extreme desire to interfere in all of these cases which is, perhaps, the safest of the two; and yet we try to avoid each extreme.

I have found in my experience that one of the mistakes we were apt to make was in the fact that we did not thoroughly anesthetize our patients upon opening up the drum membrane, that we did not always satisfy ourselves with a good view of the membrana tympani, that we did not use the knife in the way that it should be used and make the incision along the margin of the drum for at least a fifth of the circumference of the drum in order to be sure of the drainage that would have prevented the development of mastoid trouble. I think that is one of the lessons that ought always be with us, the desire to feel,

that when you are incising a drum, that it should be done as carefully and as accurately as any other portion, and more so because of the results that depend upon it, absolutely perfect drainage. If there was any one lesson that I want to carry away with me in the treatment of incipient mastoid disease, I would say that that was the most important one, the necessity of good illumination in the auditory canal, perfect anesthesia in order that the quiet of the patient should be insured and an incision that would absolutely drain the middle ear.

DR. PAUL L. MAHONEY, Little Rock: I think this Society has been honored this year by having on this program three of Arkansas' outstanding physicians, Dr. Moulton, Dr. Vinsonhaler and Dr. Caldwell. All three of these men have been president of this organization and all three represent the same specialty. I think that these men could stand as a beacon light to all us younger men; and I feel that if we, in our wildest moments, would be egotistical enough to believe that we could reach the heights and receive the recognition that they have received, we must first consider that we have confronting us a very difficult task.

I am not going to attempt to reiterate the statements that Dr. Moulton has made to you. His talk was very elementary and practical, as I feel all these talks should be. For me to speak of the relationship between ear infections, mastoid infections and sinus infections would be a paper in itself. To speak on mastoid infections in children, with indications for operating upon mastoids, on how to interpret the x-ray examinations of mastoids; all of these would comprise papers within themselves.

I would like to tell you of two types of mastoid infection that he mentioned. These two types of infection are: first, the coalescent type and, second, the hemorrhagic or thrombic type. In the coalescent type, procrastination may not result in anything unfavorable, but if you procrastinate in the hemorrhagic type, it may mean the loss of a life or, at least, some very serious complications.

Now, how would you recognize the coalescent type? If you have a patient with an acute middle ear infection, you will either have a mucopurulent or sero-purulent discharge. It may be scanty or it may be profuse. During the first week of this otitis media there will be pain behind the ear. The fever will be from normal to 102 with, as a rule, afternoon elevations; but you will usually have associated with this some rhinobronchial irritation, in other words, some infection in the nose, severe coughing, bronchitis, etc. If you make an x-ray of this patient, you may receive a report of acute mastoiditis. The report will indicate whether it is an exudative mastoiditis or destructive mastoiditis; just like the air spaces in the lung, the alveoli may be filled with an exudate and show a cloudiness on the film, the same way with the mastoid. If you x-ray early you will always get a cloudiness in the mastoid cells, due to the exudation. That doesn't mean that the patient needs a mastoid operation but it indicates further observation and treatment. It isn't unusual to x-ray some of these cases two or three or four times, because the minute that you find destruction that is the time to operate. As a rule, we don't operate on these patients under three weeks; you may go as long as seven weeks, although some men don't recommend waiting that long for fear of getting some complication or some impaired hearing. That is how you recognize the coalescent type of infection.

Suppose you have another little patient that develops otitis media, the pain is severe. You open the drum, the pain is continuous, and you usually have a serous discharge. You may find very little evidence of infection in the nose. There is a little redness of the mucous membrane but this is a classic condition. You get a rapid destruction of the red cells and hemoglobin. Some of you may not be located where you can get this laboratory work. So, if you can't get this laboratory work, but your patient has a discharging ear and severe pain continues behind and in the ear with septic temperature. a high temperature which comes down some, up again, down some and up again, that is what we term the hemorrhagic type or thrombic type of mastoid infection. Your x-ray will not show destruction. It will show the picture of an exudative type of mastoid in which there is a cloudiness on the film. This is due to blood, et cetera, within the air spaces. We can not procrastinate in this type of infection; early operation is imperative. If you find a patient with a seropurulent discharge from the ear, great pain, septic temperature, a mastoid picture that shows exudation, you don't procrastinate.

I want to thank Dr. Moulton for his most excellent paper and I want to say that I enjoyed, as I always do, Dr. Vinsonhaler's discussion.

DR. A. S. BUCHANAN, Prescott: Dr. Moulton has given us a timely discussion of the subject and I have enjoyed it to the fullest extent. I can not qualify as a specialist because my work is along the line of general surgery, but have done quite a few mastoid operations with, perhaps, a slight degree of success.

To me the specialist sits upon a very high pedestal, and his word, diagnostic ability and treatment of any condition coming in his line is not to be questioned. Due to the fact that he has only from the chin up, in this instance, to master there is no wonder that, we who have everything from ingrowing nails to brain tumors with which to deal, get into so much trouble.

I think the program committee errs when they place a man of Dr. Moulton's ability on the program and select from among the best qualified men in the South, Dr. Frank Vinsonhaler, to first discuss the paper. In other words, before Dr. Vinsonhaler discusses the paper, we of the general practice group should be allowed to discuss and ask questions.

My object in appearing on the platform at this time is not to discuss the paper but to report a little case simply hoping to receive some information.

A boy of eight years was sent from school to the office and who was examined by one of my

associates for what appeared to be otitis media with an approaching mastoid. The youngster's throat was slightly inflamed. Otherwise, his symptoms were entirely subjective. Three days later he was seized with severe pain over left side of head and over the left eye, followed in twelve hours by paralysis of both eyes, or especially the external rectus muscle was involved. The pain and paralysis persisted until it became necessary to resort to an opiate for relief. This patient was referred to the local specialist also to Dr. Sachs of St. Louis for a diagnosis, but they were unable to diagnose the case.

The pain and paralysis of the eyes continue to this time. If you can give me any light on this case it will be gladly received.

(After the discussion was over Dr. Vinsonhaler suggested that the youngster had a localized meningitis and at this time, July 14th, 1933, he was fully recovered, proving to me that general discussions are entirely worth while.)

DR. J. H. BUCKLEY, Fort Smith: No doubt every man who has done ear work at some time in his life has had referred to him a case for mastoid operation, which is not a mastoid trouble at all but a diffused external otitis. Now, some of you might smile at the confusion between a diffused external otitis and a mastoiditis, but the differentiation is not always so easily made. You have pain in both conditions, pain upon pressure, and tenderness. In the external otitis diffusa, your swelling may be of such an amount that the canal is closed so that you can't see the condition of the drum membrane. I don't think I have ever seen a case of diffused external otitis that there was not pain upon moving the ear and also upon the act of chewing. So, when one comes to me with a pain in the ear, the first thing I ask without ever looking is, "Does it hurt you to chew?" If they say, "yes," I at once suspect a diffused external otitis. I then ask them as a matter of fact if the ear didn't itch, and if they didn't scratch it with something, and most of them say, "Yes." And usually that is the way they get their infection of the external canal.

In reference to the etiology that, of course, as Dr. Moulton pointed out, helps. There is a traumatic mastoiditis, which, if this is the case, you would get in the history. I might say, however, that I have never seen a traumatic mastoiditis, although I do know that such occurs.

Inasmuch as I am doing special work, Dr. Buchanan, I feel at liberty to say that, as a matter of fact, I don't think that the brains are found except in the general practitioner. There is where you find the brains. It takes more brains, I think, to be a general practitioner than it does to do special work. I tried to do general practice a while. Now I am doing special work. I tried general practice for ten years. And I never think of the general practitioner that I don't think that, when the golden moon is hidden by the silvery clouds and when the blinking stars have closed their eyes in sleep, and when the otologists, laryngologists, ophthalmogists, dermatologists, and all the other "ologists" and specialists are in the arms of Morpheus, it is then that the general practitioner is on his way of mercy. However, I believe in specialism.

Some ten or fifteen years ago I was sitting in my office looking out of the window when we were having Garrison Avenue paved. There was a small hump-backed man who was laying brick. He kept four men busy. Just as fast as they could bring the brick, he would lay them. I doubt very much if this fellow could read or write but he could lay brick. So I think that there is a place for this specialist, and he ought to be able, if he is a brick layer, to lay brick.

DR. MOULTON, in closing: I have very little to add. I am sorry some of the gentlemen who discussed the paper did not answer Dr. Buchanan. I must say that I feel incompetent to answer it myself, especially after this patient has consulted such eminent men as Dr. Buchanan mentioned, and especially after Dr. Buchanan himself has been unable to arrive at a conclusion as to what the diagnosis is. As I was sitting by the side of Dr. Vinsonhaler, he leaned over and suggested that it was a case of localized meningitis. The location of the pain, the presence of Gradenigo's syndrome and the persistence of fever would suggest to my mind that that was probably a correct diagnosis. I also think that Dr. Sachs was correct in stating that it was a case that needed watching.

I thank you.

RESOLUTION OF RESPECT ON THE DEATH OF DR. A. H. GILBRECH.

WHEREAS, Almighty God in the divine dispensation of His Omniscience, has seen fit to call from our midst our fellow-practitioner, Dr. A. H. Gilbrech;

WHEREAS, our fellow-physician, Dr. A. H. Gilbrech, has during the many years that he followed his profession so conducted himself in accordance with the standards and ethics thereof; and

WHEREAS, our associate, Dr. A. H. Gilbrech, has at all times earned the respect of the profession and love of the community in which he resided, and has at all times lent himself to the upbuilding of the profession and of the community;

NOW THEREFORE, BE IT RESOLVED that we, the Society as a whole, greatly and sorrowfully deplore his untimely passing; that in his death our organization has lost a worthy and faithful member and our community a public-spirited and valuable citizen; and that we extend to the surviving relatives our sincerest sympathy.

W. H. MARTIN, *President*,
C. A. HENRY, *Secretary*.

Original Article

UNDER WATER PHYSIOTHERAPY AND POOL THERAPY*

Louis G. Martin, M. D.,
Hot Springs National Park.

It is not my intention to bore you with a lot of details of the methods used to regenerate nerve impulse and muscle function by under-water exercise and massage. It is my purpose simply to explain a few of the general principles by which we are able to get results.

About four years ago reports became numerous of favorable results obtained by UNDERWATER THERAPY in infantile paralysis. Permission was obtained from the Government to try this method with our radio-active water here in Hot Springs. We hoped that more favorable results could be obtained by the use of our hot water than by the use of ordinary hot water. Also we wished to determine what could be done in other forms of paralysis as well as arthritis, neuritis, etc. Gentlemen, our results have been surprising in a great many cases in the rheumatism group as well as in the different forms of paralysis.

A brief outline of the principle used in this type of treatment is as follows: a floating body displaces its own weight. A body wholly or partially immersed in a fluid is buoyed up by a force equal to the weight of the fluid displaced, thus relieving two-thirds of the body weight or gravity pull. In this manner the nerve impulse and muscle power required to move a group of muscles or an individual member is lessened. It is very essential that any type of muscle and nerve re-education be done under the supervision of a highly trained technician. It is very unwise to turn a patient loose having a weak muscle group, simply telling him to exercise, as a marked inequality of muscle power has the same deforming effect on both the weak and strong muscles and on the body structure to which it is attached. The weak muscle is over-worked and tired out, thus becoming weaker. The strong muscle does the more work becoming stronger and increasing the deformity. A trained teacher by assisting the patient under water may relax the strong group of muscles while the weaker is at work until the weak muscle has developed sufficient nerve impulse and muscle strength to work in accord with the unaffected or stronger group of muscles.

The mental effect required for this treatment is a great factor. A person unable to move a part out of water, with the nerve impulse and muscle energy lessened two-thirds by placing him at a given depth in a pool but with the exertion of a strong mental effort, will find that he can get a slight quiver out of a paralysed member. He is much elated and will continue this mental effort until the nerve impulse to the part is sufficiently increased to move the affected group of muscles. As a matter of fact, it is hard to make him stop, and if he is not closely watched he will over-tire his already weakened nerve tract and muscles. This is the one thing that can do the most damage and must be constantly guarded against. It is a very painstaking and gradual process to build up a damaged nerve tract or muscle group. A chart is made before treatment is begun and all affected groups of muscles, nerves, etc., are classified as good, poor, or very poor, according to the extent of damage and the duration of the condition. In a recent survey with reports at the end of two years of treatment at intervals, sixty-two per cent of all the muscles affected rated good to poor became normal. It is very essential to remember that the earlier the treatment is begun the more pronounced and rapid the recovery will be. The above remark applies chiefly to infantile paralysis, hemiplegia, spastic paralysis, and paralysis following injury.

May I also state that there is a great field for this type of treatment in pre-operative and post-operative handling of joint and muscle operative cases. In the rheumatism group, I have been very much gratified with the results that may be obtained. Passive motion up to the point of pain can be started quicker, due to the relaxation of the muscles and ligaments sur-

*Presented with motion pictures before the Fifty-eighth Annual Session of the Arkansas Medical society at Hot Springs National Park, May 2, 3, 4, 1933.

rounding the joints, lessening of body weight and gravity pull. These motions should never be up to the point of pain, as it is the danger signal. But massage about the joint and motion at the joint can be started much earlier and carried on much faster under water than in any other way. Thus the blood supply to the joints is increased, hastening absorption and limiting deposits in and about the joints. It is surprising in cases of chronic arthritis how much motion and with little effort can be obtained in a joint, if in a given depth under water with persistent exercise, such as walking, swimming and the like. In a great many cases these joints may be brought back to normal. Some of the pitiable after-effects in acute rheumatic conditions may be prevented by starting this type of treatment early enough to prevent contracture and ankylosis. It is understood of course that pool treatment is simply an adjuvant to other forms of therapy and in no way replaces them.

It is very unwise to tell a patient to try just eight or ten pool baths and see if he likes them. In order not to damage his affected members, the first ten days or so may be spent in very mild passive motions in preparation for his more strenuous efforts. It is very difficult to keep them from becoming discouraged.

DISCUSSION

DR. J. F. ROWLAND, Hot Springs: Since I have been a victim of arthritis for the past four years, and have been confined to a wheel chair part of that time, I cannot refrain from expressing myself relative to the disease and its treatment. Sometimes I doubt if we are correct in the etiology of arthritis deformans. You will see a patient go from bad to worse after every source of focal infection has been removed and in many cases no foci of infection are ever discovered by the best diagnosticians. Many treatments have been instituted, but unless you keep the joints active, movable and exercised they will become stiff, immovable and ankylosed, and when this occurs the patient will have less chance or require longer time for recovery. Some of the most eminent men of our profession have made the mistake of keeping the patient at rest and not manipulating the joints at the very beginning of the trouble. The best way to exercise the joints is under water at a temperature of ninety-six to ninety-eight degrees Fahrenheit. In this temperature of water there is less pain on manipulation, the patient will have less reaction and the pain caused by the manipulation will subside more quickly than if it is done out of the hot water. However, I believe in carrying the manipulation to the extent where the patient develops reaction from the treatment. It seems that the good we derive from serum or proteid injections in many instances is from reaction or shock. Another advantage in underwater treatment is that the patient is able to walk or to exercise more easily in three or four feet of water. If the patient is confined to a wheel chair or on crutches he is able to walk or stir about in the water with little difficulty, and at the same time the muscles which have become atrophied and flabby begin to fill out and are soon able to support the body. In a short time the patient is able to leave the wheel chair or to discard the crutches. The tendons become less drawn by exercise and manipulation and the pain is reduced. Even when the diathermy treatment is given the patient's joints should be well manipulated or exercised as there is less pain on manipulation when the temperature of the joint is raised. Constant manipulation of the joints, getting the patient back on his feet as soon as possible even though it gives excruciating pain, plenty of good wholesome food, and keeping patient well alkalized will, I think, improve many cases of arthritis deformans which we have heretofore been unable to benefit.

DR. L. V. PARMLEY, Little Rock: I am not interested particularly in the treatment of anterior poliomyelitis, not being an orthopedist, but confining my work particularly to traumatic surgery; but I do want to make a few remarks with reference to Hot Springs in the after treatment of certain fractures, especially those of the arms or legs. Arkansas has been blessed, of course, with springs equal to those anywhere else in the world so far as the health-giving waters or so far as the natural heated waters are concerned. It seems to me we are making a mistake in not taking more advantage of these natural resources of this State. I am going to ask you, doctor, something about the after treatment of fractures. I know it isn't included in your paper but I am going to ask if you have had any experience, or if any man here has had any experience with this sort of under-water therapy in treatment following fractures, where atrophy has existed for quite some time after the parts involved have been kept in a cast or in a splint over a long period of time. It seems to me that this type of under-water therapy is much better than any other type of massage we could give those atrophied muscles. I can readily see the advantage of the buoyancy of the water in the proper handling of these muscles. I notice that it is particularly up to the attendant to use the muscles in the adverse direction and to allow those muscles that are good to perform the two motions themselves. I am particularly struck with this paper and films. I don't know whether there is any health-giving quality to these waters in Hot Springs or not. But there is no question but what under-water therapy, manipulation as well as exercise, must be exceptionally good for atrophy of anything. I hope the doctor will condescend to answer that question.

DR. MARTIN, in closing: In view of the lack

of time I can answer the doctor's question much better about atrophy following operative cases of fracture. I think there is a great field for this under-water exercise, due to the fact that your patient can actually put effort into it. It takes about two-thirds less nerve impulse to move the muscles under water. A voluntary motion is worth 100 per cent of involuntary motion. At first we simply keep moving that joint in order to relax the strong muscles, watch these people put the effort into it, and then we begin right away. That's the time to do it.

Clinical Notes

FORMULA AQUEOUS SULPHUR MIXTURE

Geo. F. Jackson, M. D.,
Little Rock, Arkansas

It has been my experience that precipitated sulphur when mixed properly with bentonite (aluminum silicate), can be perfectly suspended or emulsified.

According to the amount of sulphur used, one should reduce or increase the bentonite. Ordinary lotions, containing thirty to sixty grains of sulphur per ounce, usually require from 1 to 2 per cent bentonite to obtain a perfect suspension. A light sulphur cream can be obtained by increasing the bentonite.

A vessel in which an electric mixer can be used is selected for a container. The bentonite is added to the sulphur and both are thoroughly triturated. To this is added the desired amount of water and thoroughly mixed with the electric mixer. This gives a sulphur lotion that possesses adhesive as well as medicinal properties.

The above is a delicately perfumed, non-staining formula for dermatological practice. It adheres to the surface, has no disagreeable odor, is inexpensive and is easily applied as a lotion in scabies and pediculosis. It should be rubbed briskly over the parts affected. I find this lotion superior to any of the ointment preparations.

The formulas used in my practice are as follows:

Sulphur Lotion—℞ Bentonite, drams 2; Sulphuris precipitated, ounces 1; Aqua dist QS ad., ounces 8; Ol. Jasmine, mins 4.

Sulphur Paste—℞ Bentonite, drams 4; Sulphuris precipitated, ounces 1; Ol. Rosea, mins 5; Aqua dist QS ad., ounces 8.

In perfecting the above formula I was assisted by Calvin Dilaha, Ph. G.

(809-11 Boyle Building.)

Original Article

A MEDICAL MUSEUM*

Harvey S. Thatcher, M. D.
Little Rock.

In the University of Arkansas School of Medicine there is an old book containing intestines dating from the Civil War, 1864. Attached to one of these well preserved specimens there is a short history as follows:

"Case 81. Eliphalet G. Phillips, Private, Co. 'M,' 10th N. J. Inf., was admitted into this hospital 15 Aug., 1864, much debilitated with anorexia and a dry brown tongue. Oct. 1, 1864, was attacked with congestion of the lungs attended with a troublesome cough. Was given expectorants and anodynes for it and anodynes, astringents and stimulants for diarrhea. Died Nov. 1864. Sect. cadaver Nov. 2, 1864, 17 hours post morten. Rigor Mortis medium. Embonpoint very much emaciated. Intestines as seen in following condition."

Attached to the lower part of this page there is a portion of the small intestines, which are congested with swelling and ulceration of one of Peyers patches. There are regions in this patch which resemble miliary tubercles. The diagnosis had been given as tuberculosis. Other specimens in this book illustrate well the pathological lesions of typhoid fever in the intestines. These have also been diagnosed as typhoid fever.

The physician who collected the intestines described above has given us a valuable record which could never be replaced. Many lines of thought are awakened by these pages.

In the Northern Army during the Civil War and including the years following up to June 30, 1866, there were reported 75,361 cases of typhoid fever with 27,056 deaths in white troops and 4,094 cases in colored troops with 2,280 deaths. These intestines are records of the death toll from typhoid fever during that period. They also remind the observer that preventive medicine and public health education have adopted the rules of scientific discoveries since that time.

*From the Department of Pathology, University of Arkansas School of Medicine, Little Rock, Ark.

The work of Lister and Pasteur at that time was only in its infancy. Was there a surgeon who could have operated for a perforated ulcer of the intestines with success then? B. typhosus was not discovered until 1880 by Elberth. It was not grown in pure culture until 1884 by Gaffky. The final achievement for the discovery of the causative organism for tuberculosis was given to Robert Koch in 1881. These shellaced specimens pasted on pages illustrate the pathological results of the diseases mentioned above more than a generation before the discovery of the causative organisms.

These valuable pathological intestines should form the nucleus for a historical collection for the State of Arkansas. There are many historical documents as old books, records, diplomas which should be sent to the School of Medicine for classification and preservation. Old instruments are likewise important. These are probably stored in old libraries or attics. A central museum should be maintained here for the collection and classification of historical medical material for the benefit of the history of medicine in the State of Arkansas as well as for the scientific world.

Book Reviews

Calcium Metabolism and Calcium Therapy. By Abraham Cantarow, M. D. Philadelphia: Lea and Febiger, 1933. Price $2.50.

The increasing interest in calcium metabolism is reflected by the second edition of this compact volume. The subject is rationally presented in the light of our present knowledge, both the normal and abnormal calcium metabolic changes being discussed. The third part deals with calcium therapy.

Preventitive Medicine. By Mark F. Boyd. M. D., M. S., C. P. H. Philadelphia: W. B. Saunders & Co., 1932. Cloth, $4.50.

This is a concise presentation of the important features of modern preventitive medicine, chapters being devoted to deficiency diseases, occupational diseases, disease due to micro-organisms, the puerperal state, heredity and disease and public health. All subjects are discussed comprehensively but yet in a brief manner and the author states that all available sources have been drawn upon for this work. This work is well adapted for the use of the public health man but will also serve the general practitioner well.

Diagnosis and Treatment of Diseases of the Thyroid Gland. George Crile and associates. 164 illustrations. 508 pages. W. B. Saunders & Co., 1932.

This volume is an account of the experiences of the Staff of the Cleveland Clinic in the treatment of diseases of that organ with a testimonial to Theodor Kocher.

There are chapters by 24 different members of the Staff of the Cleveland Clinic and they are written and edited in such a way that the book reads and answers all questions that you might think of in the diagnosis and treatment of any case of thyroid involvement. There are chapters from the nurses on their role in relation to the management of these cases as well as from the anesthesist, the assistant and from the recognized master, George Crile.

Each chapter blends into the following so that you feel as if it were written by one author. It makes a delightful evening's entertainment, as well as furnishing a storehouse of knowledge.

Obituary

DR. J. S. HUTCHERSON, aged 80, of Dolph, Izard county, died at his home February 18th.

DR. A. H. GILBRECH, aged 59, died suddenly at his home in Clarendon on February 27th, 1934. He is survived by his father, J. F. Gilbrech, of Clarendon; his wife, a daughter, Mrs. Milwee Haynes of Pittsburgh, Pa., two sons, Raymond and Harold of Clarendon and two grandchildren.

DR. WILLIAM ANDREW MONTGOMERY, aged 78, died at his home in Atkins March 2nd after an illness of one week. He is survived by his wife and six daughters.

DR. W. S. NORMAN, aged 82, died at his home in Hamburg, March 13th. He was graduated from Tulane University in 1875, and married Miss Mary Olivia Norman at Normandy Hall, Union county, May 9, 1875. He had practiced medicine in this vicinity for 58 years. He retired two months ago.

PRESIDENT'S PAGE

Gentlemen:

As this will be the last issue of *The Journal of the Arkansas Medical Society* prior to our Annual meeting in Little Rock, April 16th, 17th and 18th, I want to take this opportunity to thank the members of the medical profession for their hearty co-operation during my term of office as your President. I have tried my best to serve you collectively with no special favors to any section of the state or to any individual. It is a pleasure to say that I have enjoyed visiting every section of the state and every Councilor District meeting except the Second. This honor you conferred on me will be a pleasant memory until the "last round up."

The sea has been rough sailing but the old ship still holds up. I sincerely hope every eligible medical man in Arkansas will become a member of his county society and thereby a member of the state society.

This is the critical hour. The doctors still have the opportunity for preventing outright socialization of medicine, by some plan of their own for solving the problems of medical economics, whether by group practice, state subsidy, voluntary insurance or what not. If the doctors lose this opportunity, a plan for medical care will arise anyway, but it will come in the worst way. The doctors will have forced political control of the practice of medicine upon themselves by lack of organization and by fighting it without vision.

A Medical Society is an organization of men gathered together that they may better serve the public by keeping abreast of the times through the exchange of experience and the work of each other. The work of the medical society is to make bigger, broader, kindlier men, men who can go out from the meeting not only more skilled and learned in their science, but more worthy of the respect and confidence the degree Doctor of Medicine should bring. The medical society asks that men engaged in God's noblest calling work one with another and not one against another. It stands for honesty, truthfulness, progress, unity, and self-betterment that we may be better practitioners of our art and better men.

A united medical profession can brush away any and all obstacles. It is next to impossible to find a really successful physician who has obtained fame outside the pale of organized medicine.

Are all eligible physicians in your county members of your local medical society? If any are discovered who are not get busy and try to induce them to join at once.

L. J. Kosminsky, M. D.

THE JOURNAL

OF THE

ARKANSAS MEDICAL SOCIETY

Owned by the Arkansas Medical Society and Published under direction of the Council.

DR. W. R. BROOKSHER, Editor

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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

THE ANNUAL MEETING

Elsewhere in this issue of *The Journal* appears the complete program of the fifty-ninth annual session of the Arkansas Medical Society to be held at the Marion Hotel, Little Rock, April 16th, 17th and 18th. This is a well-balanced program, of interest to all members of the society, and further enhanced by the presence of distinguished guests, authorities in their respective fields, who will address the session. In particular, will the addresses of Dr. Morris Fishben, Editor, The Journal of the American Medical Association, add to the profit of the meeting. His address to the public at the Monday evening meeting, to which the public is invited, should materially advance the cause of organized medicine with the laity, presenting our problems to them for a sympathetic understanding. This feature of the meeting will be a high-light in Arkansas medical meetings and one which you can ill-afford to miss.

All state medical meetings are important. Scientifically, those in attendance profit by the assimilation of new ideas and methods from the papers, the discussion, and from contact with colleagues. Socially, definite benefits accrue. The fraternal spirit of medical men is enlivened and opportunity is afforded for meeting old friends and making new ones. These are most enjoyable adjuncts of the meeting. The exhibits which have been arranged, both scientific and commercial, offer visual evidence of medical progress and technic which are worthy of careful study. Entertainment has been arranged which will provide that needed relaxation which most of us seem able to obtain only on occasions such as the state medical meeting.

A man may be a good physician and not attend medical meetings but it is certain that he would be a better physician were he to avail himself of these opportunities. Changes in medicine are frequent, constant and ever-advancing. The knowledge of these changes is best acquired by attendance at the medical meetings where they are presented for the benefit of medical men. Those physicians who do attend are ever in the forefront in offering modern scientific practice to their patients.

Preliminary Program & Announcements

OF THE

FIFTY-NINTH ANNUAL SESSION OF THE

ARKANSAS MEDICAL SOCIETY

LITTLE ROCK

April 16, 17, 18, 1934

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COUNCILORS AND COUNCILOR DISTRICTS

FIRST DISTRICT—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph Counties. Councilor, W. M. Majors, Paragould. Term of office expires 1935.

SECOND DISTRICT—Cleburne, Fulton, Independence, Izard, Jackson, Sharp and White Counties. Councilor, L. T. Evans, Batesville. Term of office expires 1934.

THIRD DISTRICT—Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis and Woodruff Counties. Councilor, M. C. John, Stuttgart. Term of office expires 1935.

FOURTH DISTRICT—Ashley, Bradley, Chicot, Cleveland, Drew, Desha, Jefferson and Lincoln Counties. Councilor, H. T. Smith, McGehee. Term of office expires 1934.

FIFTH DISTRICT—Calhoun, Columbia, Dallas, Lafayette, Ouachita and Union Counties. Councilor, L. L. Purifoy, El Dorado. Term of office expires 1935.

SIXTH DISTRICT—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier Counties. Councilor, A. C. Kolb, Hope. Term of office expires 1934.

SEVENTH DISTRICT—Clark, Garland, Grant, Hot Spring, Montgomery, Saline and Scott Counties. Councilor, Geo. B. Fletcher, Hot Springs National Park. Term of office expires 1935.

EIGHTH DISTRICT—Conway, Faulkner, Johnson, Perry, Pope, Pulaski and Yell Counties. Councilor, M. E. McCaskill, Little Rock. Term of office expires 1934.

NINTH DISTRICT—Baxter, Boone, Carroll, Marion, Newton, Searcy, Stone and Van Buren Counties. Councilor, D. L. Owens, **Harrison. Term** of office expires 1935.

TENTH DISTRICT—Benton, Crawford, Franklin, Logan, Madison, Sebastian and Washington Counties. Councilor, S. J. Wolfermann, Fort Smith. Term of office expires 1934.

DELEGATES TO THE A. M. A.—William R. Bathurst,* Little Rock (1933); D. A. Rhinehart, Little Rock (1934).
*Deceased.

COMMITTEES

SCIENTIFIC PROGRAM—R. B. Robins, Camden, Chairman; Wm. R. Brooksher, Fort Smith; L. H. Lanier, Texarkana; Geo. F. Jackson, Little Rock.

SCIENTIFIC EXHIBIT—H. Fay H. Jones, Little Rock, Chairman; L. G. Martin, Hot Springs; Walter G. Eberle, Fort Smith.

MEDICAL LEGISLATION—L. V. Parmley, Little Rock, Chairman; M. L. Norwood, Lockesburg; Chas. K. Townsend, Arkadelphia; R. L. Armstrong, Lewisville; W. T. Lowe, Pine Bluff; J. R. Parker, Eureka Springs; J. G. Martindale, Hope.

HEALTH AND PUBLIC INSTRUCTION—W. B. Grayson, Little Rock, Chairman; J. F. Williams, Texarkana; F. O. Rogers, Little Rock; Paul Mahoney, Little Rock; J. D. Riley, Booneville; A. S. Buchanan, Prescott.

NECROLOGY—F. Vinsonhaler, Little Rock, Chairman; J. J. Morrow, Cotter; E. F. Ellis, Fayetteville; J. M. Lemons, Pine Bluff.

CANCER CONTROL—W. Decker Smith, Texarkana, Chairman; D. W. Goldstein, Fort Smith; B. E. Hendrix, Gillham; L. A. Purifoy, El Dorado; Chas. S. Holt, Fort Smith.

CONSTITUTION AND BY-LAWS—D. A. Rhinehart, Little Rock, Chairman; S. W. Douglas, Eudora; J. W. Butts, Helena; W. M. Gibson, Nashville; E. L. Watson, Newport.

HOSPITALS—W. F. Smith, Little Rock, Chairman; W. G. Hodges, Malvern; M. J. Kilbury, Little Rock; R. L. Smith, Russellville; W. H. Horn, Taylor; C. A. Archer, DeQueen.

PUBLICITY—Jerome S. Levy, Little Rock, Chairman; S. J. Hesterly, Prescott; E. H. Hunt, Clarksville; F. E. Baker, Stamps; E. L. Beck, Texarkana.

DISEASES OF THE HEART—A. G. Sullivan, Hot Springs, Chairman; O. C. Melson, Little Rock; A. W. Strauss, Little Rock; W. H. Bruce, Pine Bluff; R. C. Dickinson, Horatio; P. H. Phillips, Ashdown.

CHILD WELFARE—S. A. Drennen, Stuttgart, Chairman; J. B. Futrell, Rector; T. H. Jones, Mag-

nolia; C. A. Henry, Clarendon; H. E. Longino, Texarkana.

AUXILIARY—Will H. Mock, Prairie Grove, Chairman; W. T. Wootton, Hot Springs; R. R. Robins, Texarkana; T. F. Kittrell, Texarkana; Luther M. Lile, Hope.

LOCAL COMMITTEES

GENERAL CHAIRMAN—Geo. F. Jackson.

GENERAL COMMITTEE—Geo. F. Jackson, Chairman; M. J. Kilbury, Clyde Rodgers.

ENTERTAINMENT COMMITTEE—Paul Mahoney, Chairman; C. C. Reed, K. W. Cosgrove, Bryce Cummins, B. A. Bennett.

ANNOUNCEMENTS

REGISTRATION

The registration desk will be located in the Hotel Marion and open from 8:00 a. m. to 5:00 p. m.

The delegates are requested to register as early as possible, so that the House of Delegates may proceed with its business, beginning promptly at 9:30 a. m. Members are also requested to register and receive the official badge and program.

The members of the Woman's Auxiliary and visiting ladies will also register and receive a program and the official badge of their organization.

All meetings except the open session on Monday evening, April 16th, will be held in the Hotel Marion. The open session will be held in the Little Rock High School Auditorium, Fourteenth and Park avenue.

MEETING OF THE COUNCIL

The Council of the Arkansas Medical Society, including the Ex-presidents, will meet at noon each day with luncheon in the private dining room, Hotel Marion, immediately following the adjournment of the morning sessions.

PROGRAM

HOUSE OF DELEGATES

First Meeting, Hotel Marion, April 16, 9:30 a. m.

Meeting called to Order by L. J. Kosminsky, President.

Calling Roll of Delegates.

Appointment of Credentials Committee and their report.

Introduction of Fraternal Delegates.

Adoption of Minutes of the Fifty-Eighth Annual Meeting as published in the July, 1933, issue of the Journal of the Arkansas Medical Society.

Appointment of Reference Committee.

President's Address to the House of Delegates.

REPORT OF COMMITTEES

SCIENTIFIC PROGRAM—R. B. Robins, Chairman.

SCIENTIFIC EXHIBIT—H. Fay H. Jones, Chairman.

MEDICAL LEGISLATION—L. V. Parmley, Chairman.

HEALTH AND PUBLIC INSTRUCTION—W. B. Grayson, Chairman.

NECROLOGY—F. Vinsonhaler, Chairman.

CANCER CONTROL—W. Decker Smith, Chairman.

CONSTITUTION AND BY-LAWS—D. A. Rhinehart, Chairman.

HOSPITALS—W. F. Smith, Chairman.

PUBLICITY—Jerome S. Levy, Chairman.

CHILD WELFARE—S. A. Drennen, Chairman.

DISEASES OF THE HEART—A. G. Sullivan, Chairman.

ARRANGEMENTS—Geo. F. Jackson, Chairman.

REPORT OF THE COUNCIL—Dewell Gann, Sr., Chairman.

REPORT OF THE STATE BOARD OF MEDICAL EXAMINERS—A. S. Buchanan, Chairman.

REPORT OF THE DELEGATES TO THE A. M. A.

REPORT OF THE TREASURER.

REPORT OF THE SECRETARY.

NEW BUSINESS.

SELECTION OF THE NOMINATING COMMITTEE.

SELECTION TO FILL VACANCIES ON THE STATE BOARD OF MEDICAL EXAMINERS.

(Report to be made at Final General Session)

SCIENTIFIC SESSION

MONDAY, APRIL 16, 1:30 P. M.

HOTEL MARION

Calling the Society to Order—L. J. Kosminsky, President.

Invocation—Rev. L. A. Taylor.

Address of Welcome—Mayor Horace A. Knowlton, Little Rock.

Address of Welcome on Behalf of Pulaski County Medical Society—A. C. Shipp, Little Rock.

Response on Behalf of the Arkansas Medical Society—W. H. Mock, Prairie Grove.

President's Annual Address.

"The Trend of Medical Practice"—Morris Fishbein, Editor, The Journal of the American Medical Association, Chicago, Illinois.

"Progress in Obstetrics and Gynecology"—S. B. Hinkle, Little Rock.

"Childhood Tuberculosis"—A. A. Blair, Fort Smith.

"Conservative versus Radical Surgery"—I. G. Jones, DeQueen.

"The Knee Joint"—F. Walter Carruthers, Little Rock.

"Coronary Thrombosis"—Roy Millard, Dardanelle.

EVENING SESSION

(Open to the Public)

LITTLE ROCK HIGH SCHOOL AUDITORIUM
FOURTEENTH AND PARK AVENUE
8:00 P. M.

Calling the Meeting to Order—A. C. Shipp, President, Pulaski County Medical Society.

Invocation—Dr. W. P. Witsell, Rector, Christ Episcopal Church, Little Rock.

Introduction of Distinguished Guests—L. J. Kosminsky, President, Arkansas Medical Society.

Address—Mrs. James A. Blake, President, Woman's Auxiliary to the American Medical Association, Hopkins, Minnesota.

"Fads and Quackery in Medicine"—Morris Finkbein, Chicago, Illinois.

TUESDAY, APRIL 17, 8:30 A. M.

MEMORIAL SESSION

Joint Meeting with the Auxiliary

CONVENTION HALL, HOTEL MARION

COMMITTEE ON NECROLOGY—F. Vinsonhaler, Little Rock, Chairman; J. J. Morrow, Cotter; E. F. Ellis, Fayetteville; J. M. Lemons, Pine Bluff.

CALLING MEETING TO ORDER—President Kosminsky

INVOCATION—Rev. C. M. Reves, Pastor, First Methodist Church.

"WHEN THEY RING THE GOLDEN BELLS FOR YOU AND ME"—Mrs. I. J. Steed, Soprano; Mrs. W. R. Richardson, Contralto; Max Brown, Tenor; Byron Bennett, Bass.

MEMORIAL ADDRESS—Frank Vinsonhaler.

"CROSSING THE BAR"—Quartet.

BENEDICTION.

DECEASED MEMBERS

Percy Alexander Riddler, Fort Smith, April 30, 1933.

William Brand, Springdale, May 15, 1933.

Luther Edgar Moore, Searcy, June 4, 1933.

Lem H. Lipsey, Wynne, July 12, 1933.

Thomas N. Rodman, Batesville, July 20, 1933.

Eugene H. Winkler, DeWitt, August 19, 1933.

William Ray Bathurst, Little Rock, August 31, 1933.

Harry Norwood Street, Lonoke, October 3, 1933.

Samuel Robert Herring, Warren, October 28, 1933.

Harry Wynne Browning, Little Rock, November 3, 1933.

J. M. McLendon, Gould, November 20, 1933.

Grover Cleveland Webb, Russellville, November 27, 1933.

Walter Oling Parrish, Rector, December 29, 1933.

Franklin Beverly Kirby, Harrison, January 20, 1934.

Albert Henry Gilbrech, Clarendon, February 27, 1934.

William S. Norman, Hamburg, March 13, 1934.

9:30 A. M.

"The Relationship of Allergy to Otolaryngology" (Lantern demonstration)—John Shea, Memphis.

"Endometriosis"—E. W. Bertner, Houston, Texas.

"Looking at Our Laboratories"—Fount Richardson, Fayetteville.

"Uterine Hemorrhage"—I. Fulton Jones, Fort Smith.

"The Effects of Quinine on the Second and Eighth Nerves"—J. G. Mitchell, El Dorado.

"A Review of Recent Progress in General Medicine"—S. C. Fulmer, Little Rock.

1:30 P. M.

"Newer Developments of Physical Diagnosis"—Oscar W. Bethea, New Orleans.

"The Simplification of Obstetrical Care"—E. D. Plass, Iowa City, Iowa.

"Endocrine Therapy in the Climateric"—G. R. Seigel, Clarksville.

"Chiasmal Syndrome—Report of Cases"—Albert Mann, Texarkana.

"Carcinoma of the Uterus"—W. Decker Smith, Texarkana.

"Progress in Surgery"—Chas. S. Holt, Fort Smith.

EVENING

There will be a banquet for physicians and their wives at 6:30 p. m., followed by the President's Ball and Reception at 10:00 p. m.

WEDNESDAY, APRIL 18, 1934

9:00 A. M.

"Symptoms and Treatment of Dysfunction of the Colon"—Henry Rudner, Memphis.

"The Psychoneuroses"—H. Unterberg, St. Louis.

"Trigeminal Neuralgia: Diagnosis and Treatment"—R. M. Klimme, St. Louis.

"Late Syphilis"—S. F. Hoge, Little Rock.

"A Simple Office or Bedside Test to Determine the Degree of Acidosis"—J. H. McCurry, Cash.

"Allergy, an Everyday Problem"—W. T. Wooton, Hot Springs National Park.

AFTERNOON SESSION

FINAL MEETING OF THE HOUSE OF DELEGATES

HOTEL MARION, APRIL 18, 1:30 P. M.

CALLING MEETING TO ORDER—L. J. Kosminsky, President.

ROLL CALL.

REPORT OF NOMINATING COMMITTEE.

ELECTION OF OFFICERS:

- President-Elect.
- First Vice-President.
- Second Vice-President.
- Third Vice-President.
- Secretary.
- Treasurer.
- Five Councilors.
- Delegates to the A. M. A.

REPORT OF THE COMMITTEES.

FURTHER NEW BUSINESS.

ADJOURNMENT.

FINAL GENERAL SESSION

WEDNESDAY AFTERNOON, APRIL 18

(Immediately after adjournment of the House of Delegates)

CALLING MEETING TO ORDER—L. J. Kosminsky, President.

UNFINISHED BUSINESS.

REPORT OF THE REFERENCE COMMITTEE.

PRESENTATION OF PRESIDENT F. O. MAHONY.

PRESENTATION OF PRESIDENT-ELECT.

NEW BUSINESS.

SELECTION TO FILL VACANCIES ON THE STATE BOARD OF MEDICAL EXAMINERS.

SELECTION OF PLACE OF NEXT MEETING.

ADJOURNMENT SINE DIE.

Proceedings of Societies

The Conway-Pope-Yell County Medical Society met in dinner session at the Hotel Pearson, Russellville, on February 6th. Following installation of the new officers: L. M. Smith, President; E. L. Matthews, Vice-president, and Robert Hood, Secretary-treasurer, the following program was presented by the staff of St. Vincent's Infirmary, Little Rock:

"Encephalitis"—Clyde Rodgers
"Pernicious Anemia"—O. C. Melson
"Lithopedion"—Sterling Bond
"Krukenburg Tumor"—Dewell Gann, Jr.
"Amebic Abscess"—Homer Higgins.

Charts and roentgenograms of the above cases were presented by D. A. Rhinehart and M. J. Kilbury exhibited the pathological specimens. M. E. McCaskill, Councilor, gave a review of the medical relief fee schedule situation.

ROBERT HOOD, *Secretary.*

The Ouachita County Medical Society met in regular monthly session Thursday night, March 1, at the Camden Hospital. There were twenty-two physicians present. A banquet was served the doctors by the nurses at the hospital previous to the scientific program. The scientific program was furnished by the Staff of St. Vincent's Infirmary of Little Rock. Speakers were Drs. Fay Jones, D. A. Rhinehart, Hoyt Allen, S. C. Fulmer, M. J. Kilbury, Dewell Gann, Paul Mahoney and W. F. Smith.

The following new officers were elected: President, Dr. R. B. Robins, Camden; Vice-President, Dr. J. P. Clemens, Mt. Holly; Secretary-Treasurer, Dr. Sam A. Thompson, Camden; Delegate, Dr. W. A. Purifoy, Chidester; Alternate, Dr. J. B. Jameson, Camden.

R. B. ROBINS, *Secretary.*

Benton County Medical Society met in dinner session at the Youree Hotel, Siloam Springs, March 8th, with the following scientific program:

"Malignancies of the Skin"—D. W. Goldstein, Fort Smith.
"The Eye in Relation to General Medicine"—J. C. Ogden, Fort Smith.

The Sixth Councilor District Medical Society held its semi-annual meeting at the Grim Hotel, Texarkana, March 8th, with Dr. R. R. Kirkpatrick presiding. The Miller County Medical Society entertained those in attendance at luncheon. The following program was presented:

"The Treatment of Malaria Other Than Quinine"—J. J. Baker, Magnolia.
"A Retrospect and Some Brief Suggestions Concerning Acute Appendicitis"—G. E. Cannon, Hope.
"The Value of Pre-operative Treatment"—W. A. Hutchinson, Texarkana.

Washington County Medical Society met at Fayetteville, March 6th, with Dr. F. H. Krock, Fort Smith, presenting "The Surgical Treatment of Pulmonary Tuberculosis."

At the regular meeting of the Chicot County Medical Society held at Lake Village, February 27th, 1934, the following were elected to office: J. H. Burge, Lake Village, President; A. J. Pauli, Lake Village, Secretary; S. W. Douglas, Eudora, Delegate to the State Convention to be held in Little Rock, with B. C. Clark of Lake Village as alternate.

Boone County Medical Society met at Harrison, March 6th, with Dr. D. L. Owens presenting a case and a paper. Drs. Orville B. McCoy and G. I. Jackson, of Harrison, were elected to membership. Present: D. L. Owens, G. K. Sims, J. H. Fowler, D. E. Evans and W. H. Poynor. The following visitors were present: G. I. Jackson and Orville B. McCoy, Harrison, and R. H. Huntington, Eureka Springs. The society will next meet with the Ninth Councilor District Medical Society at Eureka Springs in June.

W. H. POYNOR, *Secretary.*

The Ashley County Medical Society met at Hamburg, March 1st, electing the following officers: President, L. C. Barnes; Secretary-treasurer, J. W. Simpson; Delegate, M. C. Crandall, and Alternate, J. W. Simpson. The scientific program consisted of a discussion of pellagra and malaria. The meeting concluded with a banquet at the McCombs Hotel.

J. W. SIMPSON, *Secretary.*

The regular meeting of the Sebastian County Medical Society was held on March 13th in the Ward Hotel. This meeting was a joint meeting of the Sebastian County and the Jasper County (Missouri) Societies, with the men from Joplin furnishing the program:

"Some Phases of Pulmonary Tuberculosis" —By Dr. Jesse E. Douglas and Dr. W. H. Kinney.

"Renal Tuberculosis"—By Dr. W. L. Baxter and Dr. P. W. Walker.

"A Method of Spinal Fusion"—By Dr. S. A. Grantham.

This was, indeed, one of the most enjoyable of our yearly programs. A banquet was served at 7:00 p. m. and the program followed.

Personal and News Items

The February, 1934, issue of The Tri-State Medical Journal contains: "Diagnosis of Various Diseases Through Opthalmoscopic Examination" by L. H. Lanier, Texarkana, and "The Prevention of Obseity" by F. J. Scully, Hot Springs National Park. Other recent publications are "Calcified Renal Cysts" by Dr. H. Fay H. Jones, Little Rock, in the February, 1934, issue of The Urologic and Cutaneous Review, and "Hydrotherapy in Arthritis," by Dr. M. F. Lautman, Hot Springs National Park, in the February, 1934, issue of Archives of Physical Therapy, X-ray, Radium.

Among the Arkansas physicians in attendance at the District Conference of the American College of Surgeons held at Oklahoma City, February 22nd and 23rd were: L. L. Purifoy, El Dorado; E. F. Ellis and J. W. Walker, Fayetteville; M. E. Foster, F. H. Krock and H. Moulton, Fort Smith; W. V. Laws and A. H. Tribble, Hot Springs National Park; H. Fay H. Jones, L. Val Parmley, J. F. Shuffield and W. F. Smith, Little Rock; W. H. Mock, Prairie Grove, A. S. Buchanan, Prescott, and L. M. Smith, Russellville.

Dr. F. Walter Carruthers has moved his office from the Exchange Bank Building to Suite 446 Donaghey Building.

Auxiliary Page

MRS. D. W. GOLDSTEIN, Publicity Secretary
616 North Greenwood Avenue
Fort Smith, Arkansas

Woman's Auxiliary to Clay County Medical Society. President, Mrs. W. O. Parrish, Rector; Vice-President, Mrs. N. J. Latimer, Corning; Secretary-Treasurer, Mrs. F. H. Jones, Piggott; Social Relations, Mrs. T. P. Hiller; Public Relations, Mrs. J. E. McQuire; Program, Mrs. Blackwood, Rector.

Clay County Auxiliary has co-operated with their County Medical Society and in Piggott, through the P. T. A. and Civic Club, have conducted school clinics each September. Through their efforts each Piggott school child now is required and does carry a certificate of health, stating his physical condition.

The Woman's Auxiliary to the Johnson County Medical Society met February 26th at the home of Mrs. G. L. Hardgrave with the following present: Mrs. G. R. Siegel, Mrs. J. S. Kolb, Mrs. E. H. Hunt, Mrs. G. L. Hardgrave and Mrs. James M. Kolb.

Plans for a program for the following year were discussed and it was voted to have a social meeting on the second Tuesday of each month with members and guests contributing a silver coin at each meeting, which is to apply on the Ilse F. Oates Student Loan Fund.

Officers were elected for the following year and dues were collected.

Our next meeting will be held at the home of Mrs. G. R. Siegel on the second Tuesday in April.

Officers for the Woman's Auxiliary to the Bowie and Miller Medical Society elected Friday, February 23rd, are: Mrs. Decker Smith, President; Mrs. N. B. Daniel, President-elect; Mrs. W. L. Kitchens, First Vice-President; Mrs. A. W. Roberts, Second Vice-President; Mrs. C. A. Smith, Jr., Third Vice-President; Mrs. T. F. Kittrell, Fourth Vice-President; Mrs. S. A. Collom, Jr., Recording Secretary; Mrs. W. A. Hutchinson, Corresponding Secretary; Mrs. Joe E. Tyson, Publicity Secretary; Mrs. Roy Baskett, Treasurer, and Mrs. P. H. Phillips (Ashdown) Parliamentarian.

Mrs. James W. Dawson was guest speaker for the afternoon and chose for her subject "Health and Happiness."

Members of the Woman's Auxiliary to the Pulaski County Medical Society were hostesses at a dinner Wednesday evening, February 21, at Sylvan Hills Country Club, given in honor of the husbands of members.

Mrs. Byron Bennett, President, presided and presented Mrs. B. A. Rhinehart, President Woman's Auxiliary Arkansas Medical Society; Dr. A.

C. Shipp, President of the Pulaski County Medical Society, and Dr. M. E. McCaskill, Chairman of the Council of the Arkansas Medical Society. The Sylvan Hills Club orchestra furnished music for the dance which followed the dinner. Mrs. W. F. Smith, Chairman of the entertainment committee, was assisted in making arrangements for this delightful affair by Mrs. H. A. Higgins, Mrs. R. C. Kory, Mrs. W. L. Sadler, Mrs. Frank O. Rogers, Mrs. S. R. Crawford, Mrs. M. H. Yeaman, Mrs. L. V. Parmley and Mrs. R. E. Pryor.

Mrs. J. B. Jameson and Mrs. S. D. McGill were hostesses to the Woman's Auxiliary to the Ouachita County Medical Society on Thursday night, March 1, at the Jameson home in Camden with a three-course dinner to the eleven members attending. The president, Mrs. C. S. Early, presided over the business meeting. Mrs. B. V. Powell was named as delegate and Mrs. R. B. Robins as alternate to the convention which will be held in Little Rock in April.

New officers were elected as follows: President, Mrs. B. V. Powell; President-elect, Mrs. J. S. Rinehart; Vice-President, Mrs. R. C. Kennerly; Secretary-Treasurer, Mrs. J. B. Jameson.

Mrs. J. Palmer Sheppard was hostess to a meeting of the Obstetrical Pack Committee of the Woman's Auxiliary to the Pulaski County Medical Society Wednesday afternoon, February 7th. Mrs. Anderson Watkins, committee chairman, supervised the assembling of 12 packs. Members who assisted in the work were: Mrs. Charles E. Oates, Mrs. B. A. Rhinehart, Mrs. W. E. Smith, Mrs. H. A. Higgins, Mrs. W. E. Gray, Jr., Mrs. Raymond Wallace, Mrs. G. F. Jackson, Mrs. J. B. Crawford, Mrs. D. M. Switzer, Mrs. F. E. Hurrle, Mrs. W. H. Miller and Mrs. B. A. Bennett.

HOW TO KILL A MEDICAL SOCIETY.

1. Don't come to meetings—if you do come, come late.

2. If the weather doesn't suit you, don't think of coming.

3. If you do attend a meeting, find fault with the work of the officers and other members.

4. Never accept office, as it is easier to criticize than to do things. Nevertheless, get sore if you are not appointed to a committee; but if you are, do not attend committee meetings.

5. If asked by the chairman to give your opinion regarding some important matter, tell him you have nothing to say.

6. After the meeting, tell everyone how things ought to be done.

7. Do nothing more than is absolutely necessary, but when other members roll up their sleeves and willingly and unselfishly use their ability to help matters along, howl that the organization is being run by a clique.

WOMAN'S AUXILIARY
TO THE
ARKANSAS MEDICAL SOCIETY
TENTH ANNUAL MEETING

APRIL 16, 17, 18, 1934

LITTLE ROCK, ARKANSAS

HEADQUARTERS: HOTEL MARION

OFFICERS

PRESIDENT—Mrs. Barton A. Rhinehart, Little Rock.

PRESIDENT-ELECT—Mrs. William Hibbitts, Texarkana.

FIRST VICE-PRESIDENT—Mrs. H. King Wade, Hot Springs National Park.

SECOND VICE-PRESIDENT—Mrs. Pierre Redman, Fort Smith.

THIRD VICE-PRESIDENT—Mrs. E. A. Callahan, Carlisle.

FOURTH VICE-PRESIDENT—Mrs. R. B. Robins, Camden.

SECRETARY—Mrs. L. D. Reagan, Little Rock.

PUBLICITY SECRETARY—Mrs. D. W. Goldstein, Fort Smith.

TREASURER—Mrs. Anderson Watkins, Little Rock.

PARLIAMENTARIAN—Mrs. C. W. Garrison, Little Rock.

HISTORIAN—Mrs. Marcus T. Smith, Conway.

ADVISORY COMMITTEE

W. H. Mock, Prairie Grove; W. T. Wooton, Hot Springs National Park; R. R. Robins, Texarkana; T. F. Kittrell, Texarkana; L. M. Lile, Hope.

COMMITTEE CHAIRMEN

ORGANIZATION—Mrs. H. King Wade, Hot Springs National Park.

EDUCATION AND PUBLIC HEALTH—Mrs. J. B. Crawford, Little Rock.

ILSE F. OATES STUDENT LOAN FUND—Mrs. Chas. E. Oates, North Little Rock.

HYGEIA—Mrs. W. R. Brooksher, Fort Smith.

CONSTITUTION AND BY-LAWS—Mrs. R. C. Kory, Little Rock.

PUBLIC RELATIONS—Mrs. Gaston A. Hebert, Hot Springs National Park.

MEMORIAL—Mrs. T. S. Hare, Crawfordsville.

FINANCE—Mrs. L. V. Parmley, Little Rock.

PROGRAM—Mrs. Chas. E. Oates, North Little Rock.

CREDENTIALS—Mrs. Anderson Watkins, Little Rock.

LOCAL COMMITTEES

ENTERTAINMENT

Mesdames W. F. Smith, W. R. Bathurst, H. A. Higgins, R. C. Kory, W. L. Sadler, F. O. Rogers, S. R. Crawford, M. H. Yeaman, L. V. Parmley, R. E. Pryor.

PUBLICITY

Mrs. Raymond Wallace, Mrs. Randolph Smith.

AUTOMOBILE

Mesdames K. W. Cosgrove, N. W. Reigler, M. E. McCaskill, D. T. Hyatt,

MUSIC

Mrs. W. R. Richardson.

COURTESY

Mesdames C. E. Oates, Anderson Watkins, D. A. Rhinehart, Pat Murphy.

REGISTRATION AND CREDENTIALS

Mesdames J. B. Crawford, C. C. Reed, R. A. Law, Joe Shuffield, S. C. Fulmer, L. F. Barrier.

FLOWERS

Mesdames F. E. Hurrle, G. F. Jackson, W. H. Miller, J. H. Sanderlin, M. B. Holmes, T. M. Fly, J. C. Cunningham.

GOLF

Mrs. H. W. Hundling, Mrs. B. A. Rhinehart.

EXHIBITS

Mesdames Geo. F. Jackson, T. M. Fly, W. E. Gray, Jr.

PROGRAM

MONDAY, APRIL 16

8:30 A. M. REGISTRATION—Banquet Room, Hotel Marion.

10:00 A. M. EXECUTIVE BOARD MEETING—Room 207, Hotel Marion.

2:00 P. M. GENERAL SESSION—Kahn Room, Hotel Marion.

CALL TO ORDER—Mrs. B. A. Bennett, President, Pulaski County Auxiliary.

INVOCATION—Rev. L. A. Taylor, Central Presbyterian Church.

ADDRESS OF WELCOME—Mrs. J. Palmer Sheppard.

INTRODUCTION OF STATE PRESIDENT, Mrs. B. A. Rhinehart, Little Rock.

RESPONSE TO ADDRESS OF WELCOME—Mrs. J. T. McLain, Gurdon.

INTRODUCTION OF HONOR GUESTS.

REPORT OF THE A. M. A. AUXILIARY CONVENTION—Mrs. Wm. Hibbitts, Texarkana.

REPORT OF THE SOUTHERN AUXILIARY CONVENTION—Mrs. C. W. Garrison, Little Rock.

ANNOUNCEMENT OF SPECIAL COMMITTEES.

REPORT OF REGISTRATION COMMITTEE.

REPORT OF ENTERTAINMENT COMMITTEE.

4:00 to 6:00 P. M. TEA—Residence of Mrs. W. R. Bathurst, 1433 Prospect Avenue.

8:00 P. M. GENERAL SESSION of the Arkansas Medical Society, High School Auditorium. Dr. L. J. Kosminsky, Texarkana, President, Arkansas Medical Society; Dr. Morris Fishbein, Chicago, Editor, A. M. A. Journal; Mrs. James Blake, Hopkins, Minn., President, Woman's Auxiliary to the American Medical Association.

TUESDAY, APRIL 17

8:30 A. M. MEMORIAL SERVICE — Ball Room, Marion Hotel (Joint Session with the Arkansas Medical Society).

DECEASED MEMBERS:

Annie A. Bradford Robinson, Little Rock

Roberta Martin Smith, Fort Smith

9:30 A. M. GENERAL SESSION—Kahn Room, Hotel Marion.

CALL TO ORDER—Mrs. B. A. Rhinehart.

ADDRESS—Dr. L. J. Kosminsky, Texarkana, President, Arkansas Medical Society.

READING OF MINUTES.

REPORTS:
State Officers.
State Committees.
County Auxiliaries.

ORGANIZATION IN THE SOUTHERN STATES—Mrs. Chas. E. Oates, Vice-President A. M. A. Auxiliary.

QUESTION BOX.

REPORT OF NOMINATING COMMITTEE.

ELECTION OF OFFICERS.

1:00 P. M. LUNCHEON—Albert Pike Hotel.

TOASTMISTRESS—Mrs. B. A. Bennett.

INTRODUCTION OF PRESIDENT AND VISITORS.

INTRODUCTION OF PAST PRESIDENTS.

MUSIC.

INTRODUCTION OF WIVES OF OFFICERS OF STATE MEDICAL SOCIETY.

INTRODUCTION OF STATE OFFICERS.

PRESIDENT'S REPORT—Mrs. B. A. Rhinehart.

ADDRESS—Mrs. James Blake, A. M. A. Auxiliary President.

INSTALLATION OF OFFICERS.

MINUTES.

ADDRESS OF INCOMING PRESIDENT, Mrs. Wm. Hibbitts.

3:30 P. M. POST CONVENTION BOARD MEETING—Mrs. Wm. Hibbitts presiding.

6:30 P. M. BANQUET AND PRESIDENT'S RECEPTION—Hotel Marion.

WEDNESDAY, APRIL 18

9:30 A. M. GOLF TOURNAMENT — Little Rock Country Club.

10:00 A. M. DRIVE OVER CITY.

THE DOCTOR'S OFFICE AS A HEALTH CENTER

Virtually every qualified physician in Detroit has become, to all intents and purposes, a deputy health commissioner, and his office a center for preventive medicine.

The ultimate objective of the plan is to have the family doctor take care of his patients in health as well as in time of illness. Another objective is to re-educate the public to look to the physician in private practice for such preventive services as diphtheria protection, small-pox vaccination and periodic health examinations, rather than to depend upon public agencies and free clinics—in short, to impress upon the public mind the fact that preventive medicine is a purchasable thing, and something that is to be paid for in the same manner as any other desirable commodity.

Family Doctor Is the Unit

The Detroit Plan is a group plan—the group being the organized medical society. It is not built about a unit or community health service constructed around a clinic or hospital center, but rests upon the family physician who becomes the unit on which medical practice is constructed. At present 1,100 doctors are active participants. There is no insurance scheme but a resonable honorarium is paid to physicians for services rendered in their own offices to those who are unable to pay. Funds for this purpose come from the budget of the health department.

Physicians who have agreed to co-operate abide by certain orders and regulations prepared jointly by the medical society and the health department. The plan began with a diphtheria prevention program. It was agreed that on certain days the co-operating physician will give toxin-antitoxin or toxoid for one dollar per treatment. The agreement does not hinder the physician from charging his client any price he chooses if the patient comes at any other hour. The physician also agrees that if the patient cannot pay he will render the service free to the patient and the health department agrees to reimburse him at the rate of fifty cents for each service. Each co-operating physician is supplied with record cards for his own use, and postcards which he mails to the health department for recording each series of toxin-antitoxin or toxoid treatments.

This scheme enables the health department continually to broadcast to the public that diphtheria immunization may be obtained at a certain price or for nothing if one is unable to pay.

While the plan was introduced with the diphtheria prevention campaign the ultimate purpose is to secure the participation of every qualified and prepared physician in the practice of preventive medicine. Recently tuberculosis prevention was added to the scheme. This plan is regarded not as a substitute to the tuberculin testing and X-ray service in the schools as at present conducted, but as a supplement to it. The procedure is outlined in the following circular which was sent to all physicians in Detroit.

Outline of Procedure

"Children and adults will be urged to come to you by an active educational program through the radio, billboards, newspaper articles, and speakers before lay groups.

"There will be issued to school children a 'Notice to Parents' urging that the children be taken to their physician. If parents do not have a regular physician the Wayne County Medical Society will furnish them with the name of one or two co-operating physicians who reside in their neighborhood.

"The first visit should include a tuberculin test and a general physical examination. Tuberculin for the Von Pirquet test can be secured without charge (for Detroit) from the Department of Health, at the Wayne County Medical Society, or at the Detroit Tuberculosis Sanatorium.

"Every individual who has a positive tuberculin test should have an X-ray examination. The roentgenologists have agreed to accept your statement regarding the ability of the individual to pay for the X-ray service. If you feel that the patient is unable to pay even a part of the X-ray cost, he may be sent to the Herman Kiefer Hospital where the X-ray examination will be made without charge (for residents of Detroit) and a report will be sent to you.

"The charge for this examination should be arranged between the physician and the patient but no one should be turned away because of inability to pay.

"We expect that a fee of ten cents will be paid for each report sent in.

"When a positive diagnosis is made, the case should be reported to the Department of Health on the regular forms provided for that purpose. The state law requires that these records be not open to public inspection."

With this outline was sent a letter signed by the Wayne County Medical Society, the Detroit Tuberculosis Sanatorium and the Department of Health inviting the physicians to participate. Those who reported received a second letter thanking them for their co-operation, stating where tuberculin might be obtained and urging them to attend a series of clinical conferences arranged by the joint staffs of the sanatoria. With this letter were enclosed examination blanks, and postcards on which to report cases found.

Health officials and representatives of medical associations are watching with keen interest the experiment at Detroit. While it may not be adaptable for all communities it throws light on the problem of medical and public health relationships and suggests the basis on which co-operation may be effected.

Book Reviews

Surgical Clinics of North America (Lahey Clinic Number—June, 1933). Volume 11, No. 3. 275 pages, with 92 illustrations. Per clinic year, published bi-monthly, paper $12.00, cloth $16.00. Philadelphia. W. B. Saunders Company, 1933.

This, the Lahey Clinic number, contains many valuable contributions from this group. Among these we would list as most informative: Esophageal Diverticula, Diaphragmatic Hernia, Dislocation of the Acromoclavicular Joint, Indications for Transurethral Resection in Bladder Neck Obstruction and the Decision for Surgery and the Management of the Patient with Hyperthyroidism. The two-step operation for esophageal diverticula is described in detail by Lahey. Overholt calls attention to the number of intestinal obstructions which occur in diaphragmatic hernia and suggests phrenic exeresis as another method for its repair by paralyzing the diaphragm, allowing the lung to descend and obliterate the cavity. Haggart describes the operation for reduction of acromocalvicular joint dislocation which has been done on numerous occasions and which aims to maintain the clavicle in contact with the coracoid process. To this he adds the procedure of a fascial transplant for holding the acromial end of the clavicle in contact with the acromiom as an extra precaution. Hicks is of the opinion that transurethral prostatic resection is a highly technical procedure which carries an appreciable risk of mortality and morbidity but which is attended with good results in contractures, small carcinomas and small fibrous glands but does not appear to be suitable for the large prostates. It has the advantages of shorter hospitalization, less shock and is favored in poor risks.

Biochemistry in Internal Medicine. By Max Trumper, Ph. D., Clinical Chemist and Toxicologist; formerly in charge of the Laboratories of Biochemistry of the Jefferson Medical College and Hospital, and Abraham Cantarow, M. D, Instructor in Medicine, Jefferson Medical College; in charge of Laboratory of Biochemistry, Jefferson Hospital. 545 pages with illustrations. Philadelphia: W. B. Saunders Company, 1932. Cloth, $5.50.

This is not another laboratory manual but a work correlating established facts in physiology and biochemistry with the problems encountered daily in internal medicine; the objective of the authors. It serves the practicing physician as a guide in reaching the correct interpretation of clinical laboratory findings, a phase of modern diagnosis which has been somewhat neglected due to the emphasis which has been placed upon the laboratory technic itself. The normal findings are discussed in each instance before proceeding to the consideration of the variations from the normal. The final chapter lists the chemical diagnostic features of various disorders and gives the normal chemical standards of whole blood, blood plasma, blood serum and cerebrospinal fluid. The style is clear and direct and the book is certain to stimulate interest of physicians in the field of biochemistry as it relates to the clinical side of medicine.

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Original Article

ANTI-TUBERCULOSIS PROGRESS*

J. D. RILEY, M. D., State Sanatorium

Every man who strikes blows for power, influence and institutions for the right must be just as good an anvil as he is a hammer. In his attempt to develop new things or to develop new possibilities in old things, the pioneer must overcome initial inertia and friction, must subdue or placate the opposition and antagonism which new procedures stimulate.

The officials charged with the development and management of a great state institution must have the qualities of the anvil to an even greater degree than the qualities of the hammer; they must be able to take it on the chin, to meet and overcome opposition and inertia, to foresee and to be prepared to manage reactions. A great public institution does not reach the summit of functional achievement over night. Progress toward this objective is slow, uphill, plodding, consistent. Progress, logical consistent progress, is the considerable principle and main objective.

Tuberculosis, an intolerable evil, because of its millions of preventable deaths; an enormous waster through its withdrawal of millions more of people from productive life; its economic wrecking of innumerable homes and its tax on us for the relief of the disabled and impoverished; an ever menacing peril, obscure and furtive in attack and deceptive and treacherous in its course; is known to every one. As long as it was believed that tuberculosis was an affliction which was inescapable for its victims and transmitted from parent to child, society could afford to be indifferent to everyone of the countless tragedies and disasters caused by it.

When the scientific world accepted Villimen's demonstration of the infectiousness of phthisis, the attitude of society began to lose something of its passivity. It awakened to the fact that it could resist. A few years later when Robert Koch discovered tubercle bacilli, the actual cause of the disease, society turned to fashion the weapons of defense. At that time it was discouraging to the physicians to accept the infectiousness of tuberculosis but today if we believed tuberculosis wholly, or for the most part, inherited, it would seem a perfectly hopeless and insoluble human burden.

Forty years ago, about ten years after the discovery of tubercle bacilli, anti-tuberculosis progress appeared to be easy. Our problem consisted of a few simple elements, all easy of attack. It seemed then that it was only necessary to detect consumptives by examining their sputum, treat them in sanatoriums and cure them, thereby removing the source of infection. Many have devoted their lives to the study of tuberculosis since that time, and while the specific or the preventive and the cessation of infection yet remain to the achievements of the future, few diseases have been so fruitfully and profitably studied. In one-half century we have gathered knowledge concerning tuberculosis that despite unanticipated difficulties in its pursuit is singularly authentic and exceeds perhaps that of any other major disease. We have learned more about tuberculosis than we may affirm about our common transitory self-limited infections which should apparently be much easier of solution. The trouble is not as some would have it, that we do not know enough about tuberculosis; we surely do not know everything about tuberculosis and we cannot know too much about any menacing condition that confronts society. So much is certain but our present predicament is that we have a jumble of uncrystalized, unassimilated and imperfectly ap-

*Read before the Fifty-eighth Annual Session of the Arkansas Medical Society, held in Hot Springs National Park, May 2, 3, 4, 1933.

plied knowledge. In no single phase does tuberculosis present as simple aspect as imagined by the pioneers. Every new factor during the last forty years has all the more loudly warned us to beware of the man who can perceive of only one method of infection, one cause of onset, one diagnostic sign, one infallible test of prognosis, one method of prevention, one factor of resistance and one means of cure of tuberculosis.

Infection of itself is relatively unimportant, broadly speaking. The problem of preventing the outbreak of frank disease in the legions of the infected is the crux of the program of prevention, and in the whole scheme of tuberculosis yields first place only to the pressing duty and necessity of providing means to restore to health those already ill.

Poverty in a community means a proportionate amount of tuberculosis; so does crowding, improper housing, unhygienic occupations and industry, and other diseases, particularly respiratory infections. Consequently, our duty, our program, is plain and permits of no equivocation. It is to contribute to the attainment of civic decency and cleanliness; of light, space and food enough for all; of a rational proportion of working and leisure for those who cannot dispose of their own time; and of a reduction of preventable infections to a minimum.

Our fight against tuberculosis, therefore, involves other evils and equalities which constitute, no doubt, a more fundamental social problem than does tuberculosis itself. There can be no question as to what direction our sympathies and activities as tuberculosis workers should take. We must encourage the further development of better and cleaner stores, parks, better public schools, medical inspections of schools, improvement in factory and office architecture and the remarkable suburban development of our cities, vacations for wage earners, more sensible methods of dressing with its attendant cleanliness and psychic uplift, the astonishing increase in proper amusement with a coincidental diminution in household chores, the extraordinary extension of private and industrial insurance which has mitigated economic shock for millions of dependents. All this and much more besides has had its part in reducing the death rate of tuberculosis.

There are not a few men who have been so impressed by the decline of tuberculosis which parallels in time the birth and development of our industrial era with its marvelous expansion of wealth and comforts, that they do not appreciate the concentrated efforts of tuberculosis workers to reduce the inroads of tuberculosis. Mathematically, we can no more refute them than they can prove their point, but since they cannot prove it, it would seem little to our purpose to attempt a refutation; yet, it may be of interest to know that our larger life insurance companies, which cannot have even a sentimental interest in the organized tuberculosis movement providing we have merely been beating the air, are continually calling attention to the reduction in mortality that has been brought about by organized endeavor.

Without sceptics and apostles of negation we would no doubt relapse into flabbiness, smugness and inertia. We should welcome them, yet we must always insist that they prove their case, for I cannot recall a single important measure undertaken by the organized anti-tuberculosis movement which was not based on the best scientific information available at that time. Too much attention has been given to the biology of the germ and not enough to the patient, the victim of the germs.

It is a simple matter and within the province of everyone to condemn sanatoriums as places for the relief of tuberculosis, but it is the intelligent tuberculosis student who understands that the limitations of sanatoriums are not inherent but merely phases of a situation which society has neglected to meet and which are beyond the control of sanatoriums. I mention sanatoriums because constantly in reading I find those who consider the ultimate result in tuberculosis without comparing this with what would have been without the organized anti-tuberculosis movement including sanatoriums. There are two outstanding factors in regard to sanatorium patients. One, that patients in the sanatorium do extraordinarily well and the other, that many of those who leave the sanatorium find the world out-

side of them is not suitable for them and that it seems that they are not suitable for the world.

There are thousands of former consumptives willing to testify that sanatoriums have saved their lives; thousands who experienced a return to health during their stay in institutions and who were favorably situated afterwards avoided relapses by following out the precepts learned in them. Tuberculosis workers have not imagined that the ordinary patient obliged to return to home environment and contribute to family support can be cured of tuberculosis with even the remote expectation that he stay cured under such unfavorable conditions.

The return of tuberculosis in many ex-sanatorium patients signalized a gap and an important one in our present methods of dealing with this disease. It points to the need of some helping hand, some adjuvant for discharged patients, to lift them over the rough places and make easier for them those three or more most critical years that follow an arrest of clinically active tuberculosis. Better supervision and care of ex-sanatorium patients is a situation which must be met and will be met. Its returns will be many fold in bringing about a reduced ultimate mortality and a return of many more to productiveness.

We have thus far touched upon the prevention of infection, the development of tuberculosis, reduction of mortality, sanatorium treatment and the supervision and rehabilitation of arrested and treated cases as factors of anti-tuberculosis progress. These present the major complexes for solution. Of these perhaps the most important is the reduction of the mortality because this is at any time the most immediate and pressing problem, involving as it does the care and treatment of the tuberculous sick.

We attack the problem of mortality from several angles. We attempt to restore to health the tuberculous sick by treatment, but the results of treatment are in direct proportion to the timeliness of the diagnosis of tuberculosis. This brings us to the necessity of medical education and of bringing home to the lay public the significance of suggestive symptoms of tuberculosis, for too frequently failure to start patients on treatment early enough is due quite as much to their own disregard and neglect of those early suggestive symptoms as to the slackness of physicians. Most deaths from tuberculosis come not at the end of continuous illness but after a protracted up and down course of alternating periods of comparative well being and relapse. Since there would be fewer deaths if fewer people fell ill with tuberculosis, the problem of mortality is intimately related and dependent upon the development of phthisis which ranks second only to that of mortality as a major problem. Broadly speaking, it should probably take first place as it is the heart and kernel of the whole tuberculosis problem. We can certainly reduce our death rate more effectively and economically by preventing illness. I imagined that a close study of the records would show that the proportion of mortality reduction brought about during the last half century, through the broad influence in social and economic changes, has depended largely on the fact that fewer people are sick with tuberculosis. It would certainly show a notable reduction of deaths due to tuberculosis. The problem of prevention of the development of tuberculous disease is our most complex one and includes our knowledge of pathology, infection, resistance, heredity, our social and economic structure and the habits, customs and activities of man. Time will not permit us to discuss it in detail and a few observations must suffice.

Tuberculosis was the leading cause of death for thousands of years. The tuberculosis death rate began its noticeable decline with the dawn of the universal lightening of man's labor by machinery and, consequently, the enormously accelerated multiplication of wealth. History shows that where the sum total of prolonged stress and deprivation was greatest, there tuberculosis made its greatest gains. Education of the lay public, medical observation of delicate school children and the examination of contacts are responsibilities which the medical profession must accept. It is the tuberculosis specialist's problem to educate physicians and medical students in tuberculosis.

Notwithstanding the benignity of a

slight infection we should prevent all infection if we could, but the naked fact is that at present the distribution of tubercle bacilli enjoys such a wide range that we cannot. It is a common experience to obtain positive tuberculin tests in adults and in young children in whom the slightest and transitory contact with bacilli cannot be established. Consequently, we are forced to conclude that viable germs lurk in the most unexpected and out-of-the-way places.

These must come from some spitting or coughing consumptive, and every consumptive trained or policed into the proper disposal of his sputum lessens the source of infection by just so much. We should, therefore, become more militant in our anti-tuberculosis campaign and arouse a more or less complacent public to its enforcement. The careless consumptive who insists on grossly infecting his environment is a menace to public safety and we should be almost inclined to consider him a case for the police. However, except for the occasional imbecile or vicious patient, it is my own general opinion that proper education and sympathetic persuasion will in the long run accomplish more good in a shorter time. By far the greater number of consumptive's homes need the light of sympathetic instruction rather than the coercion of law. If every community could have a staff of home visitors of the right sort whose functions would be to aid, inspect and instruct, our mortality and our morbidity declines would become still more marked than they have been.

Solving tuberculosis in a community means, of course, that we proceed effectively along all lines. To emphasize one problem and neglect another may be merely to balance factors. Some localities have developed one or several plans of attack to an unusually high degree, but no one community has yet established a completely rounded campaign based on our present knowledge of tuberculosis.

The only basis which any intelligent tuberculosis campaign may have is one grounded on medical science. If society is to make notable progress against tuberculosis, it must encourage and support research in it. The marvel today is not so much the vast body of information that has been accumulated, as the fact that this has been done with meager resources. We can only hope that the future will disclose more generous provisions for the acquiring and disseminating of knowledge of tuberculosis. Nothing will continuously enliven interest in tuberculosis quite so much as intelligent discussions. The general practitioners are included in the machinery of the warfare of tuberculosis. Research workers and those devoting their entire time to the study of tuberculosis may dig out the ore and may sometimes fashion the tools, but you general practitioners who work among the public must adapt them and erect the machinery to apply to the task. Since this disease merges so intimately into human relations, to apply the word machinery may strike a chord that sends out a repelent timbre, nevertheless, something like it is necessary in our efforts at solution whether we call it machinery, scheme, organization or what not. No matter how high minded our intentions or how profound our understanding of the situation may be, we become effective only as we proceed with sound, matured, and may I say elastic, system. I venture elastic because, as I conceive it, the tuberculosis situation is bound to differ in detail in every community, and in every place well tested methods must be modified and moulded to the actual local conditions. As in every other human pasture, so in the intensely human one of tuberculosis, personality counts vastly more than technique and those devoted to this work, wishing to help solve and not to complicate further a supremely difficult problem, should take this to heart.

I have not tried to tell you anything new, and to be truthful, I cannot, but even though all of us agree on the nature of the many elements that might enter into the formation of a highly complicated whole; nevertheless, every one of us, if we are honest, will undoubtedly review the relationships existing between the several elements and between these and the whole through different lenses; we will weigh them on balances which will vary in scale; we see through the eyes of our individual experiences and score our ponderables accordingly. I have, therefore, thought it best to restate the problem more or less

at random, and in detached fashion set before you today views based on the trend of tuberculosis work of the past and likely to change tomorrow with any readjustments which new contributions may make necessary; yet there is one central thought concerning tuberculosis which I should like to emphasize. This is that tuberculosis is not an isolated phenomen in human existence to be regarded solely by itself; we must come to appreciate its relationships with all human affairs and its interactions with these. Let us keep this conception in mind as we proceed in the work.

I would not close without a few more words on sanatoriums and what I give as a general opinion on sanatorium progress I hope to apply to our, to your State Sanatorium. A generation ago the conception of a sanatorium was a place of rest and solitude, a place in which the cardinal triad, rest, food and fresh air should be given a thorough trial. Such was the conception of Detweiler, Trudeau and other pioneers. Later Trudeau and others started the sanatorium on its way toward its modern conception. Trudeau and his contemporaries soon began to realize that the sanatorium was a place of science as well as a place of rest. Today this conception which has long been taken for granted is germinating into actuality. The old boarding house type of sanatorium is tending to disappear. The sanatorium is becoming an active rather than a passive institution, an institution in which everything that is possible is done in the interest of the patients. We are taking the sanatorium from its position of isolation and seclusion and placing it in closer alignment with the modern hospital and with the field organization.

The sanatorium is no longer a unit in itself; it is merely a part of the tuberculosis organization. It is no longer a boarding house or a refuge for a comparatively few chronic cases; it is a scientific institution, designed primarily to serve the state, to serve the many rather than the few, and to promote the greatest good for the greatest number.

DISCUSSION

DR. F. H. KROCK, Fort Smith: I know that everyone has enjoyed Dr. Riley's paper as much as I have. There is so much in this paper that any one would be amply repaid for spending several hours of study upon it. The great clinician Osler once said that to know syphilis was to know all medicine. Today the vast ramifications of our knowledge concerning tuberculosis almost make it a fitting competitor. Our crying need, however, is a crystallization and condensation of this knowledge into a formula which can be applied efficiently and accurately, not as a standard formula to every case, but individualized as conditions dictate. I am sure that Dr. Riley struck at the heart of the matter of reducing the mortality from tuberculosis when he called our attention to the decline in the mortality tables during the development of our modern industrial era. In fact, this is one argument that the technocrats seem to have overlooked. I am sure the control of economic and social conditions as recommended would materially reduce the incidence of breakdowns among 90 per cent of us who show evidence of tuberculous infection according to autopsy statistics and tuberculin tests.

The practical point brought out is the great need for a transition for the patient after he leaves the sanatorium and before he returns to the home as a possible bread-winner. It would be a notable achievement if Arkansas could be the first to work out the details of such a plan. One solution might be a co-operative farm upon which the patient after leaving the sanatorium could resume active work under proper supervision during those first three critical years after arrest is secured.

One relatively new result in anti-tuberculosis progress has been the use of surgery as a therapeutic measure; but unfortunately this procedure is not applicable to more than ten per cent of all cases, yet in this class of patients representing a group that ordinarily has a hopeless prognosis, 37 per cent can be cured and 27 per cent can be greatly improved.

Any one who is skeptical about the Arkansas State Tuberculosis Sanatorium being a place of science needs only to visit Dr. Riley and his associates during one of their staff meetings to be converted.

Again I want to thank Dr. Riley for his presentation of this most excellent essay.

DR. H. A. STROUD, Jonesboro: I consider it an honor to be called upon to discuss Dr. Riley's paper. I have always considered him as an authority on tuberculosis and anything he says I consider just as I do the Bible on religious subjects. It isn't always so important that we make rapid progress in our struggles as it is that we travel in the right direction. From the results that have been obtained, I feel sure we are justified in saying we are traveling in the right direction. If our plans are based upon scientific knowledge and, as Dr. Riley has said, they have always been based upon the best knowledge we had at the time, and I believe they are now; if our plans are well formed, and our machinery working properly, our progress will continue and in the right direction. All the methods we have tried have contributed to our progress. The research work has been a little bit disappointing

to some of us, the seeking for a cure has been very disappointing, yet these have not been without value. Our early case-finding campaign, our early diagnosis campaign, our X-ray, our use of tuberculin and the sanatoria have all played important parts in our progress. The only question we can have is the relative importance of these things.

It seems to me that perhaps the most neglected thing in our fight against tuberculosis has been the educational part of it. All we doctors know enough about the symptoms that should prompt the patient to go to his physician, but unfortunately for the anti-tuberculosis work the doctors are not the only ones that have tuberculosis. The people in general who have these symptoms do not know that they are the symptoms that should prompt them to seek medical aid. As a profession, the doctors know enough about making an early diagnosis to diagnose almost all cases, but unfortunately this knowledge is confined to only a limited number of doctors. So many of us can't make an early diagnosis of tuberculosis. We wait until it is in the advanced or moderately advanced stage at least before we are able to make a diagnosis. So, I believe that we are falling down more in education perhaps than anywhere else. I believe that it is the duty of the doctors to educate the public. I believe that we should solicit the help of the public school teachers to educate the public as to the symptoms that should prompt a person to seek medical aid and chest examinations. I believe it is the duty, as he has said, of the tuberculosis specialist to teach our doctors how to make a diagnosis of early tuberculosis so that we may do that without letting the patient go until he has reached an almost hopeless stage before we send him to a sanatorium. I think the sanatorium is the university for the anti-tuberculosis workers, and should carry with it a training school so that every ex-patient will be a teacher in this campaign, teaching both by word and by example the lessons he has learned in the sanatorium. If the sanatorium takes proper care of the patient, it does him a great deal of good besides curing him of his disease or improving his disease. It teaches him to take care of himself when he leaves the sanatorium so as not to break down within the next few years, and it also makes a missionary of him in his own community. Patients do break down after they leave the sanatorium but there is no reason why they shouldn't, if they go back to the same conditions of living. The same things that caused them to have active tuberculosis in the first place will cause it again. If the sanatorium teaches these patients how to care for themselves, it is not responsible for their downfall. Unfortunately, as has been mentioned, many of them have to return to their work under the same conditions as before they went to the sanatorium, and of course, they are going to have the same results as before. I think it would be fine if we could have a course at the sanatorium once a year for doctors to receive direct instruction in this disease, learn to read the X-rays and learn to give a physical examination in a way that we can find out whether these people have tuberculosis or not. In that way we could make more out of our sanatorium than we do make. So, I am inclined to emphasize the educational feature of this work.

I certainly appreciate the doctor's paper. I think it was very fine.

DR. THOMAS C. WATSON, Benton: I enjoyed this paper. I just want to say a few words about it. We will not solve the tuberculosis problem in Arkansas or in any other state if we have a sanatorium on every hill to until we educate the public to co-operate with the medical profession. I certainly enjoyed the last gentleman's speech. He stressed the fact of education. This problem will be solved by the educated layman under the direction of the physician who carries this message to them.

DR. E. H. STEVENSON, Fort Smith: I thank you for the recognition and the honor of calling on me. This subject has been so fully covered by the gentlemen who have preceded me that I think further remarks from me would add but little to what has already been said. I certainly appreciate the doctor's paper and the discussion. I realize its importance and heartily concur in the educational program of the laity in regard to the help it may give to the medical profession in furthering the cause of the cure and prevention of the spread of tuberculosis.

Correspondence

March 20, 1934.

Dr. W. B. Grayson,
State Health Officer,
Little Rock, Ark.

Dear Doctor:

A plan to lower the incidence of Diphtheria in Arkansas.

I suggested this plan to a former State Health Officer, and it went over as big as did Will Rogers' recommendation to the R. F. C. Board.

Go through birth certificates of June, 1933, and mail a card to the county nurse in each county in which a birth was registered. Make her responsible for the immunization of each child. If this is carried out each succeeding month, diphtheria will probably be eradicated from this state.

The reasons for immunization at ten months of age or sooner are obvious. Under our present system this important measure is not brought to the attention of parents until a pre-school examination at age or five years, or after the child has passed through the most dangerous years.

This plan will most certainly reach the children of poor parents who are not now being effectively reached.

Yours truly,

PAUL MAHONEY.

Original Article

OBSERVATIONS ON PELLAGRA*

L. H. McDaniel, M. D., Tyronza

Contrary to the practice of most essayists or lawyers who build up their cases, step by step, marshalling fact after fact in orderly sequence up to a definite climax, I shall do exactly the opposite. I shall make my most definite and unequivocal statement first. In the answer to the oft' repeated question "What causes pellagra?" my answer is, "as yet we cannot be certain." And, since we cannot be certain, there is left room for study and investigation, and since most physicians who do a general practice in the South must need see many of these cases, it behooves them to recognize the condition and provide suitable treatment. That pellagra is of vast economic importance there can be no doubt, and in some sections where I have lived, namely the cotton mill or Piedmont section of South Carolina, it is much more prevalent than malaria.

There have been many theories advanced as to the cause of pellagra, depending on how scientific or ultra-scientific the speaker may be, all of which are well known. Probably the best known old theory, which is now totally discarded, is that advanced by Marzari in 1810 that it was due to corn. Then in 1856 a finer elaboration was added to the corn theory, that of the deterioration of corn; in other words, that the disease was due to the use of spoiled corn and not entirely to the well-known deficiency of proteins in corn. Then in 1905 Sambon advanced the theory that it was an insect-born disease transmitted by the buffalo-goat. This announcement gave an altogether different aspect to the entire subject and probably did more to stimulate interest in the etiology of pellagra than anything else up to that date.

At present there are two well-known theories which are hotly debated by their separate adherents; namely, that the disease is an intestinal infection or infestation in which the diet plays a more or less important, but not an essential role, and second, that the disease is entirely of dietary origin.

With your permission I will give you an original theory which I formerly believed most emphatically and conclusively, but which now, as I have been more or less mellowed by age and experience, I do not hold so tenaciously as formerly. My theory was that pellagra was not due to a poverty of diet, but to a mal-absorption by the metabolic system of the arsenic and iron so necessary to body welfare and especially as a food to the skin which was subjected to the exposure of the elements, sun rays, traumatism, etc. When I saw that two or three doses of intravenous arsenic worked such wonders I assumed that when the arsenic was furnished to the weakened skin and depressed body; that sub-normal body which was yearning and crying for this arsenic by presenting the symptoms of pellagra, that the body and especialy the skin was soon restored to normal, the emergency successfully bridged, and as normalcy was restored the metabolic system would likely begin to function again as formerly. Thus you see my theory was rather a compromise, in the fact that I assumed that enough food elements were not being obtained or utilized, and on the other hand I looked not to diet but to the drug, arsenic, for relief. Personally I am inclined toward the infection theory and even now I believe my theory is much better than the bare diet or Goldberger theory.

I shall hurriedly summarize the reasons advanced by the supporters of the infection theory.

(1) The seasonal character of the disease —namely, late spring and summer, or in other words about the same time we have most of our colitis, dysentery and other intestinal diseases.

(2) The abrupt appearance of the disease in different sections of the Southern states, its rapid extension and progressive increase.

(3) Its association with unsanitary conditions as most conclusively evidenced by the Thompson-McFadden Commission. This disease is most often found in lumber camps, crowded mill dis-

*Read before the Fifty-eighth Annual Session of the Arkansas Medical Society, held in Hot Springs National Park, May 2, 3, 4, 1933.

tricts where sanitation is a problem and where the ignorant are most likely to scatter all infections which are dependent on fecal contamination of water, vegetables or both. Those oft' guilty four F's—food, fingers, flies and filth must stand some blame in this as they do in typhoid. The most nearly immune in a pellagra-infested community are people who live in screened houses, have abundant sunlight in the home, are not overcrowded, and have their food protected from flies, roaches and rodents which might convey an infection in human excrement. We do not have the history of this disease having ever spread in a well-sewered city that enforced screening laws.

(4) The markedly higher incidence in women than men. Some writers say that this ratio is about two to one, but my experience is that it is nearer twenty to one. Doctor Jelks of Memphis states that this is due to the fact that the women remain in or near the home and partake more freely of cold food that has been exposed to flies and rodents while the man about the home wants his meals hot, most of which has had the infectious organisms killed.

(5) Evidence that cannot be contradicted that sanitation decreases pellagra and poor sanitation tends toward an increase. I wish that I had time to read the report of the Thompson-McFadden Commission, but you can obtain same by writing the United States Public Health Department.

(6) Occasionally finding this disease in well-to-do families where a liberal diet is available, where the patient gives a history of eating much fruit and food likely to be contaminated.

(7) Finding certain organisms in the feces of patients—organisms that have been assigned as causative agents by Jelks, Smythe, McIntosh and others.

(8) The cure by arsenic, showing its similarity to other infections of bacterial origin.

(9) Lowered red blood cell count, increase of eosinophiles, and especially of lymphocytes.

(10) Improvement of symptoms by a sudden spell of cool weather, similar to dysentery and other complaints of infectious origin.

To make this essay fair, and gentlemen, I wish to assure you that I am trying to play fair with the deficient diet adherents, I must give some of the reasons that Goldberger advances in behalf of his view.

(1) In institutions for the treatment of pellagra the nurses and attendants rarely contract the disease. The advocates of the infection theory counter that the nurses and attendants are well instructed in hygiene and sanitation and naturally observe precautions against fecal contamination. Regardless of which is right in this argument we rarely find this disease among the attendants.

(2) Active cases of pellagra are reported as responding promptly to appropriate diet and that pellagra can always be prevented by suitable diet.

(3) Pellagra has been produced according to Goldberger in healthy patients by limiting their diet.

(4) Use of vitamines in the form of yeast for the prevention and cure of pellagra.

(5) Difficulty in transmitting the disease.

(6) Explanation of the higher incidence of the disease in women than men by:

(a) Women less resistant than men.

(b) Menstruation and lactation a drain on a woman's physical forces.

(c) Shorter period of time required to show active symptoms in women.

(d) Many women eccentric as to diet, consequently not getting enough food.

(e) Disposition of the woman to stint herself that the husband or children may get a more choice diet.

I would like to discuss the symptoms of this disease, with proper regard to the

three D's—Dermatitis, Diarrhea and Depression, so often and properly emphasized. I wish to quote Doctor Jelks very closely in enumerating some of the mental symptoms noted. The depressed mental condition found occasionally in early pellagra and usually in severe pellagra is often pathetic and appealing. These symptoms include vertigo, insomnia, extreme depression, often with inability to concentrate or co-ordinate happenings, loss of, or an inordinate or unstable appetite with craving for unusual things from dirt to sour pickles, impaired digestion, an indefinite tenderness over various parts of the body, psychoses of various degrees and occasionally suicidal thoughts. A very definite percentage of inmates in insane asylums are there because of pellagra, and the further South we go the greater is the percentage.

Granting that this disease is an infection, what is the guilty organism? Some say it is an amoeba, others say that it is a peculiar type of intestinal parasite. The man who has probably done more research work than any other investigator in this section is Doctor Jelks of Memphis who insists that the offending organism is the intestinal flagellate which he has been able to demonstrate to his own satisfaction in every case he has seen. He states that possibly the flagellates become more virulent and multiply more in the starchy intestinal content of the average poor person who has been fed largely on corn bread, syrup and beans. He realizes that diet can play a part, but the organisms, the offending flagellates, must be present.

In checking over some of the laboratories in the South I have learned that the further South we go the more positive reports of flagellates were found on stool examination of patients diagnosed as pellagra. We are compelled, therefore, to more or less accept Doctor Jelks theory. Furthermore we are convinced that it is one of the southern infections or infestations. The flagellates in question are rarely found except in the South, unless we have a history that the patient has been in the South or has been eating food recently shipped from the South. The small gut is the habitat of flagellates as a rule, although when diarrhea is established, they are washed into the colon, hence the value of duodenal irrigations injected beyond the diluting influence of the stomach contents. The gravity of the pellagra appears to be related to the number of organisms found, their active motility, and appearance of the endoplasm. McIntosh states that these flagellates produce an allergy; that the system is sensitive to the protein of the parasites itself; and that some patients may be more sensitive than others with aggravation of their symptoms. Some patients may develop the allergic state more readily than others as with other allergic conditions.

Doctor Jelks' theory regarding the skin eruption, I do not accept. He states that the skin pathology is a trophic lesion due to pressure on the nerve roots, swollen by this allergic state as they are extruded from the spinal column on their way to the surfaces they supply. I do not like this theory for two reasons: first, it sounds too much like chiropractic, and second, is altogether too selective in picking out among many the few nerves that go to the exposed surfaces usually affected. The McDaniel theory, that the disease and especially the skin lesion is due to the lack of assimilation of arsenic, whether the lack of assimilation of arsenic be due to a crippling of the metabolic system by poisoning of the flagellate protein itself or not, sounds better to me than the swollen nerve root theory. Certainly we will all agree that the flagellate, if present, is a vitamin robber, and if destroyed more vitamins are available.

As to treatment, I agree that a diet rich in proteins does do an immense amount of good. Surely diet plays a tremendous part in any infection. Whenever we can get a patient to realize that a balanced diet is advantageous, he will then begin to realize that cleanliness and sanitation are also virtues to be adopted. In other words, we are beginning to educate, and while I believe Doctor Goldberger is wrong in his theory, I believe he has done the South much good by instilling the idea of gardens, cows and chickens in our people. When a poor, uneducated tenant becomes so interested in his welfare he next looks to his sanitation, and consequently he un-

consciously begins to help stamp out typhoid, malaria, dysentery and pellagra.

I feel that I should take up yeast. I have used a great many sacks of this supposedly valuable product, a product of most abominable taste, at a considerable cost to my patients, the Red Cross and myself, and I have never been able to see any benefit that I was positive resulted from the yeast. I have seen a goodly number of patients become disgusted and stop all pellagra treatment because of the disagreeable effects of yeast. I feel that the diet used in conjunction with the yeast has done the greater good.

I treat the skin eruption with some bland oil or grease if the skin is unbroken. Vaseline, olive oil, cold cream and unguentine are all satisfactory while I prefer the latter which is original with me. If the skin is oozing or bleeding, I use strong solutions of salicylic acid, which also happens to be original, and which hardens the surface giving great relief. If there is much odor I use potassium permanganate solutions.

The diarrhea is often hard to control. My most satisfactory treatment is a few drops of dilute nitric acid, and if this fails, opiates must be resorted to. If constipation is present instead of diarrhea, I treat as in other conditions.

If delirium is present I use heavy doses of alkalies and bromides, but if only depression is present, I insist that the family constantly try to cheer and encourage the patient. A satisfied frame of mind certainly helps in the treatment of pellagra.

By mouth I give iron, preferably the tincture and often hypophosphites as a tonic. The various pharmaceutical houses certainly deserve our thanks, and our approval, for the many tonics and reconstructive agents they have perfected during the recent years. Then above all, the cure, the specific, the one and only —*arsenic*.

First, I use .6 gram Neo-Salvarsan every other day for about five doses, then Sulph-Arsphenamine every four days for about five doses, then about every seven to ten days for five more doses. So far I have had but two cases of arsenic poisoning, both responding promptly to sodium thio-sulphate injections. I rarely use cacodylate or arsenic by mouth except in children or very stout patients as I feel that if they need arsenic they need it when and where it will do the most good—in the blood stream.

I have purposely omitted the instillation of fluids—be they solutions of arsenic or be they coal oil, salicylic acid, salicylate or soda, etc., by the transduodenal route, because to general practitioners, who certainly represent the majority of this gathering, such is superfluous. I have given you most specifically the basis for a cure in 99 per cent of cases—Neo-Salvarsan intravenously. I have used ipecac, or more properly emetine, with satisfactory results in a few cases that seemed to be slow in clearing up on arsenic.

Just here I feel that I must mention the association of Vincent's infection and pyorrhea in its worst forms with pellagra. In fact there is one school of thought today who insist that what we know as pellagra is nothing more than a terminal condition brought about by foci of infection usually in the gums. It is essential where oral infection is present, especially Vincent's, that we give 5 cc. of 1% tartar emetic, and swab the gums with a 10% solution of arsphenamine in glycerine.

In the last ten or eleven years I have treated or seen over eight hundred cases of pellagra and have yet to lose a case. I have seen them delirious and having convulsions, with heavy doses of morphine to control the convulsions until the patient would react to the intravenous arsenic. Furthermore I have had Doctor Goldberger present when I was giving these delirious patients intravenous arsenic. So, gentlemen, I feel that eight hundred cases of pellagra with eight hundred cures compares most favorably with any series of cases any advocate of diet treatment may present.

I hope that this paper may stimulate interest in this great problem that is as yet not finally solved. In the study of it we can educate the masses to realize the benefits of a garden, chickens and a cow, which will doubtless be followed by a better conception of cleanliness, sanitation and happy home life and the things that

go for general prosperity and moral uplift. Even though we may not absolutely determine the origin of this disease; till we find the causative factor, gentlemen, let us remember—Arsenic transduodenally—Arsenic internally—Arsenic hypodermatically—Arsenic intravenously—Arsenic eternally.

NOTE—The author wishes to respectfully and thankfully acknowledge assistance from Doctor John L. Jelks, Doctor Goldberger, Tice's Practice of Medicine, Report of the Thompson-McFadden Commission and others.

DISCUSSION

DR. W. M. MAJORS: I would like to congratulate Dr. McDaniel upon his most excellent paper. The doctor was so thorough in his masterly presentation of his paper that there remains but little to be said in the way of its discussion, without a repetition of what you have just heard.

Pellagra is by no means a new disease. It was discovered in Spain approximately two hundred years ago, and its name is derived from the Latin word meaning "rough skin," and takes its name because of the characteristic dermatosis of skin lesions. This disease made its appearance in the United States about one hundred years ago. From the standpoint of etiology pellagra belongs to the long list of diseases of theory. I make this statement for the reason that there exists a large divergency of opinion as to its etiology. More than a century ago, some students of medicine expressed the belief that pellagra was caused by the excessive use of maise as a food. Among other theories that have been advanced to account for the etiology of this disease I will only mention two of them; one, that it is caused by an infection, and the other, that it is caused by a diet deficient in some of the vitamins.

Recent investigation of this disease has revealed the fact that it is more prevalent in certain sections of our country where surface privies are in general use. With the result of this investigation before us, it gives us much room to look on this disease as being infectious in origin. Dr. John Jelks, of Memphis, Tenn., a man whose opinion is worthy of our highest respect, is of the opinion that this disease is due to an infection. It is the opinion of many students of medicine that the infectious theory is gaining ground over all other theories.

As to the treatment of this disease, I am in accord with all that Dr. McDaniel has said.

The reason that we do not see more cases of this disease, is because we have failed to familiarize ourselves with many of its manifestations. In conclusion, I desire to express to Dr. McDaniel my appreciation for the opportunity of hearing this most excellent paper, which covers most of the important and practical phases of this disease.

L. H. McDANIEL, in closing: Gentlemen, I appreciate the patience and courtesy of your attention. A physician who sat by me asked that I tell you whether this disease is found in the colored race. It is found in the colored race but I do not believe it is as frequent as in the white race. As to the reason for this I am not certain. Possibly the negro woman is not so "finicky" in her appetite as the white housewife. She works hard in the field and her robust appetite calls for more wholesome food, especially hot cooked food. Before closing, I feel that I should call your attention to the uniformity and similarity of the skin lesions on both sides of the body. The skin manifestations on either arm or leg are usually almost identical with those on the opposite member. In closing, gentlemen, I wish to express my appreciation to your program committee for the kind invitation to appear on the same program with such medical leaders as we have been pleased to hear. After listening to Dr. Mock last night, and to Dr. Vinsonhaler this morning, I am convinced that oratory is not a lost art. I feel that I am a better man and a better physician for attendance at this meeting and I assure you that I shall plan to attend next year.

Announcement

For a number of years the U. S. Public Health Service has been publishing, for the information of physicians, health officers, and others, a monthly abstract journal known as "Venereal Disease Information." This publication contains usually one original article on a subject of general interest in connection with the venereal diseases and numerous abstracts from the current literature pertaining to these diseases. In the preparation of this abstract journal more than 350 of the leading medical journals of the world are reviewed and abstracts made of the articles on this subject.

The cost of "Venereal Disease Information" is only fifty cents per annum, payable in advance to the Superintendent of Documents, Government Printing Office, Washington, D. C. It is desired to remind the reader that this nominal charge represents only a very small portion of the total expense of preparation, the journal being a contribution of the Public Health Service in its program with State and local health departments directed against the venereal diseases.

UNIQUE BOOK-FINDING SERVICE LOCATES "HARD-TO-OBTAIN" VOLUMES IN WORLD-WIDE SYSTEM.

Every person at one time or another is confronted with the problem of wanting a particular book that is no longer available through the regular publishing or bookstore channels. When a volume has reached that stage of scarcity, it is designated as "out-of-print" and commences to lead an elusive existence.

The American Library Service, of 1472 Broadway, New York City, organized thirteen years ago a world-wide system to track down and snare out-of-print books in any language and on any subject. They have been singularly successful in this field. Their service also extends to back numbers of all magazines.

PSYCHOSIS DUE TO CAPUDINE ADDICTION

S. T. RUCKER, M. D., Memphis, Tenn.

Mrs. C. F., age 63. Physical condition good for one of her age. Laboratory report negative. Mental status one of confusion, disorientation and some delusions. Her speech was disconnected and rambling; she would talk about absent persons as though they were present; see and hear things that did not exist. There was also some emotional instability. She would cry or laugh without cause. In 1924 her appendix and gall bladder were removed to relieve severe headaches and pains in the abdomen. Abdominal pains were less, but headaches continued. Her family doctor gave her morphine to relieve the headaches and other pains. Morphine was continued, at intervals, for more than a year. Her family moved to a different part of the state. Without her accustomed dose of morphine the headaches and other pains increased in severity. Some of her new neighbors, learning of her suffering, advised her to take Capudine. She began to take Capudine in teaspoonful doses. Some two years ago she began to increase the dose of Capudine until she was taking three ounces of the drug daily. The continued use of Capudine brought on a mental disorder. The first symptoms noticed were her memory became affected and she was unable to concentrate. She also began to say and do queer things. She would put salt in her coffee and wash dishes in butter milk. Her husband called in a physician, who tried to substitute morphine for the Capudine. The result was she would take all the Capudine she could get, in addition to the morphine given by the physician. This was her condition when she came under my observation. I put her on treatment, discontinuing the Capudine entirely, but quarter grain doses of morphine were given her twice per day for a week, when the morphine was also discontinued. Improvement was rapid, her mind soon became clear, mental alertness returned and her conversation was normal in every way. After six weeks' treatment I considered her well enough to return home. A report two months later stated her health was excellent.

Auxiliary Notes

To the members of the Arkansas Medical Society:

The Woman's Auxiliary to the Arkansas Medical Society has just completed a most successful year's work and wishes to make a brief report to you at this time.

MEMBERSHIP.

The Auxiliary is composed of twenty organized county auxiliaries all in good standing. The total membership is 295. This is an increase of ten organizations and of 86 members over that of last year.

CONVENTION.

Our convention sessions were well attended and reports indicated activity in all phases of Auxiliary work. Delegates were registered from all but four of the organized counties.

ACTIVITIES.

The following activities were gleaned from reports made at the convention:

HYGEIA SUBSCRIPTIONS—The quota assigned for the year was 75. 189 subscriptions were obtained and 4 Healthylands sold.

PUBLIC HEALTH AND EDUCATION—1750 envelopes of material issued through the national Auxiliary on communicable disease control, children's diseases and correction of physical defects in children were distributed to organized groups and placed in libraries.

PUBLIC RELATIONS—Discussion of health topics over radio; preparation of obstetrical kits; supervision of vacation schools; co-operation in preschool examinations and participation in various civic undertakings, constituted the major activities.

STUDENT LOAN FUND—Maintenance of this fund continues to be increasingly helpful.

SOCIAL ACTIVITIES—A better spirit of co-operation and understanding has been secured through the social contacts afforded in Auxiliary meetings and joint meetings with physicians.

CO-OPERATION—The main objective of the Auxiliary is to aid organized medicine in every way possible. A better understanding on the part of the general public and of the doctors will increase our usefulness. The Auxiliary appreciates the assistance of the Arkansas Medical Society in its program and bespeaks its continued co-operation and advice that we may be of greater service during the years ahead.

With all good wishes from your Auxiliary,

MRS. B. A. RHINEHART, *President*,
MRS. L. D. REAGAN, *Secretary*.

Classified Advertising

THE JOURNAL

OF THE

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DR. W. R. BROOKSHER, Editor
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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the State. Notice of deaths, removals from the State, changes of location, etc., are requested.

THE LITTLE ROCK MEETING

The annual meeting of the Society held in Little Rock, April 16-18th, was an outstanding one. Particular praise is due the committeemen and members of Pulaski County Medical Society for their untiring efforts in making the necessary arrangements. A most excellent scientific program was presented, reviewing major phases of medicine and surgery. Members of the Society are demonstrating a scientific approach to the problem of practice and with this there has developed the commendable spirit of preparing papers on their observations for the benefit of colleagues. Six guest speakers, each an authority in his chosen field, added to the scientific value of the session by practical addresses. The Society was particularly fortunate in having Dr. Morris Fishbein, Editor of the Journal of the American Medical Association, in attendance. His address on "The Trend of Medical Practice" will surely bring a revival of interest in organized medicine in Arkansas and arouse a sense of obligation to one's self and to one's colleagues, aggressively expressed against the manifold socialistic and economic reform tendencies which threaten the continued ethical practice of medicine by the individual physician. Alone, this address was of inestimable value to the Arkansas Medical Society and to the physicians of Arkansas, but it is probable that his address to the public, "Fads and Quackery in Medicine," was of even greater value to organized medicine. This address won a sympathetic response from the laity for the altruistic efforts of medical men which will be far-reaching in its effects.

446 physicians, or approximately fifty per cent of the membership of the Society, registered their attendance, the largest in years. The commercial and scientific exhibits were larger than usual, well-arranged, and valuable adjuncts to a successful meeting. The banquet and ball afforded a happy social session with opportunities for fraternalization.

F. O. Mahony, of El Dorado, was installed as President for 1934-35 and the following officers were elected: President-elect, M. E. McCaskill, Little Rock; First Vice-president, A. M. Elton, Newport; Second Vice-president, S. C. Fulmer, Little Rock; Third Vice-president, F. D. Smith, Blytheville; Treasurer, R. J. Calcote, Little Rock; Secretary, W. R. Brooksher, Fort Smith; Delegates to the American Medical Association, L. J. Kosminsky, Texarkana (two years); and W. R. Brooksher, Fort Smith, (one year). Councilors elected were: Second District, S. J. Allbright, Searcy; Fourth District, C. W. Dixon, Gould; Sixth District, Don Smith, Hope; Eighth District, S. B. Hinkle, Little Rock, and Tenth District, S. J. Wolfermann, Fort Smith. The Council reorganized, electing S. J. Wolfermann, Chairman, and D. L. Owens, Secretary.

The House of Delegates adopted the constitutional amendments proposed at the 1933 session. The three dollar yearly assessment was continued for 1935 solely on the grounds of economic expediency, it being well understood that continued operation at this rate is impossible.

Personal and News Items

Dr. Byron L. Robinson, Little Rock, addressed the American Association of Anatomists on "Castration, Atrophy and the Effect of Theelin," at the March meeting in Philadelphia.

MARRIED—On February 20th, 1934, Madge Eloise Wootton and Dr. Euclid Monroe Smith, of Hot Springs National Park. The Journal offers congratulations.

The Public Works Administration has approved a loan of $85,000 for the construction of a municipal hospital at Dermott. This will be a modern institution with about twenty beds and under present plans, will be leased for thirty years by the Benedictine Sisters.

Drs. S. F. Hoge and W. C. Langston, Little Rock, addressed the Arkansas Academy of Science at Conway in March on "The Role of Heredity in Diseased States" and "Vitamin G Deficiency," respectively.

Dr. W. G. Hodges has been reappointed city health officer at Malvern.

Dr. J. T. Powell has been elected a director of the Gravette Community Club.

Recent publications of Arkansas physicians include: "The Radio-Knife Technic for Treating Cervical Lesions and Removing the Uterus," Dewell Gann, Jr., Little Rock, in the February, 1934, issue of Clinical Medicine and Surgery, and "The Country Doctor," J. P. Clemens, Mount Holly, in the March issue of the Tri-State Medical Journal.

The Veterans Administration Facility at Fayetteville opened for patients on April 1st. This hospital has a capacity of 258 beds and is limited to white general medical and surgical cases. Dr. Frank N. Gordon is manager and the following are members of the medical staff: E. A. Welch, Clinical Director; David O. Bridgeforth, Joseph P. Delaney, Hugh B. Henry, William A. Jones and Edward L. Patterson. Dr. Leo J. Adams is chief of the dental clinic.

Drs. Roy Millard and E. J. Haster have been elected vice-president and lion tamer, respectively, of a newly-organized Lion's Club at Dardanelle. Dr. Robert Hood has been elected first vice-president of the Lion's Club of Russellville.

Dr. John Mc. Smith has moved from Little Rock to Russellville where he will be associated with the Smith-Gardner Clinic.

H. H. McAdams was elected President of the Jonesboro Y. M. C. A. Board in March.

Dr. Barton A. Rhinehart addressed the Little Rock Rotary and Kiwanis Clubs on "Normal Diet," April 5th and 10th, respectively.

Dr. Chas. S. Holt has assumed the management of Sparks Memorial Hospital, Fort Smith, under a ten-year contract. Under the provisions of the agreement, the hospital will continue past policies as a public institution and will have an open staff. St. John's Hospital, owned by Dr. Holt, has been closed and patients of the Holt-Krock Clinic will in the future be admitted to Sparks Memorial Hospital.

W. M. Majors has been elected Vice-president of the Paragould Rifle Club.

Frank Vinsonhaler was elected to honorary membership in the University of Arkansas chapter of Phi Beta Kappa, national scholastic fraternity, April 6th.

Dr. Fred Krock addressed the Noon Civics Club of Fort Smith April 20th on the provisions of the Copeland-Tugwell bill.

Dr. J. W. Scales, Pine Bluff, received a fractured hip by the collapse of an outbuilding on which he was working and is now under treatment in the Davis Hospital, Pine Bluff.

Dr. Virgil Payne, formerly of Memphis, has opened an office in Pine Bluff for the practice of eye, ear, nose and throat diseases.

D. W. Goldstein has been elected President of the Fort Smith Rotary Club.

Proceedings of Societies

The Third Councilor District Medical Society met at Helena, April 12th. The afternoon program was:

Fractures of Today—E. D. McKnight, Brinkley

Fractures of Interest to the General Practitioner—F. W. Carruthers, Little Rock

My Experience With Breech Presentations—W. C. Russwurm, Helena

Public Health Work in Arkansas—W. B. Grayson, Little Rock.

Dinner was served in the Episcopal Church at 6:30 p. m., after which a public meeting was held in the Legion Hut with the following speakers:

Recent Advances in Medicine and Surgery of Public Interest—R. L. Sanders, Memphis

Medical Organization—L. J. Kosminsky, Texarkana.

The society will next meet at Stuttgart in November.

Washington County Medical Society met April 3rd in Fayetteville with Dr. Wann Langston, Oklahoma City, presenting "A Fundamental Consideration of the Anemias."

The Fourth Councilor and Southeast Arkansas Medical Societies met in joint session at the Greystone Hotel, McGehee. Following dinner, the following program was presented:

"Interpretation of Blood Findings"—M. J. Kilbury, Little Rock.

"Milk"—E. C. McMullen, Pine Bluff.

"Medical Economics"—S. W. Douglas, Eudora.

The following were elected officers of the Fourth Councilor District Medical Society: S. W. Douglas, Eudora, President; E. C. McMullen, Pine Bluff, Vice-president, and C. A. Rosenbaum, McGehee, Secretary-treasurer.

Desha County Medical Society has elected the following officers: C. H. Kimbro, Tillar, President; J. C. Chenault, McGehee, Secretary-treasurer. Dr. C. A. Rosenbaum, McGehee, was admitted to membership in this society at the March meeting.

The Second District Medical Society met in Batesville at the Country Club Monday night, April 9. Dinner was served to the doctors and the Auxiliary, and was followed by the program: L. J. Kosminsky, President of the Arkansas Medical Society, Texarkana, "Organized Medicine;" W. R. Brooksher, Secretary of the Arkansas Medical Society, Fort Smith, "Membership in the State Medical Society;" Frank Vinsonhaler; Dean of the University of Arkansas Medical Department, Little Rock, "Progress of the New Building of the Medical School." W. F. Smith, Little Rock, "Traumatic Epilepsy," and M. C. Hawkins, Jr., Searcy, "Uterine Bleeding."

Other members and visitors present were: L. T. Evans, Batesville; F. A. Gray, Batesville; C. G. Hinkle, Batesville; C. A. Churchill, Batesville; M. S. Craig, Batesville; O. J. T. Johnston, Batesville; S. J. Allbright, Searcy; O. Parker, Searcy; F. P. Hardy, Searcy; I. M. Huskey, Cave City; G. T. Laman, Cave City; E. M. Gray, Evening Shade; R. C. Gray, Newport; S. N. Robertson, Sulphur Rock; O. L. Bone, Newark; P. H. Jeffery, Bethesda; Noel Copp, Calico Rock; H. H. Brown, Walnut Grove; W. W. Hatcher, Imboden; T. C. Guthrie, Smithville; Scott Kendall, Strawberry; J. E. Hardaway, Lynn; O. S. Wood, Salem; J. L. Weathers, Salem; J. E. Harris, Melbourne; R. L. Smith, Melbourne; H. J. Hall, Higdon; J. T. Matthews, Heber Springs; Jeff Smith, Violet Hill.

The next meeting will be in Batesville October 8th.

S. J. ALLBRIGHT, *Pres.*
O. J. T. JOHNSTON, *Sec.*

The second meeting of the Fifth Councilor District Medical Society was held in the City Hall, Magnolia, April 3rd. Over sixty physicians were in attendance for the dinner and the program which followed. Speakers were:

I. Fulton Jones, Fort Smith—"Acute Intestinal Obstruction."

L. H. Lanier, Texarkana—"Eye Diseases and Amebiasis."

B. C. Garrett, Shreveport—"Uterine Bleeding."

Frank Vinsonhaler, Little Rock—"The New Medical School."

The Craighead-Poinsett Medical Society met April 6 at Link's Hall for dinner and program.

The society voted that offices of Jonesboro physicians will close at noon on Saturday and at four o'clock all other afternoons, beginning on May the first, and continuing until September the first.

Features of the scientific session were papers read by Dr. Ira Ellis of Monette, and Dr. J. T. Altman of this city. Dr. Altman's subject was "Surgery Obstetrics."

DR. E. J. HORNER, *President.*
DR. R. M. JERNIGAN, *Secretary Pro Tem.*

Sebastian County Medical Society met April 10th with Dr. Shade D. Neely, Muskogee, Oklahoma, as guest speaker presenting "The Relation of Urology to General Practice."

J. W. AMIS, *Secretary.*

The Clay County Medical Society met jointly with the Woman's Auxiliary in their first annual Public Relations Meeting for dinner at the Hotel Clay, Piggott, March 30th. The meeting was dedicated to the memory of the late Dr. Walter O. Parrish, and physicians were in attendance from Craighead, Greene and Clay counties. Dr. J. P. Hiller presided over the following program:

In Memoriam—W. J. Blackwood.
Appreciations—R. M. Jernigan, P. W. Lutterloh, J. A. Dillman, N. J. Latimer and H. A. Stroud.
Address—Mrs. B. A. Rhinehart, President, Woman's Auxiliary to the Arkansas Medical Society.
Address—W. M. Majors, Councilor.

J. E. MCGUIRE, *Secretary.*

Obituary

DR. W. E. HUGHES, aged 65, practicing physician for 43 years, died at his home at Pocahontas, March 27th. He had been ill for several years, but did not give up his practice until shortly before he died.

Dr. Hughes was born in Spartanburg, S. C., in 1869, the son of the late Dr. William A. Hughes, pioneer physician of north Arkansas and southeast Missouri. Dr. Hughes has been a resident of Randolph County since 1877. He was educated at the University of Arkansas and studied medicine at the old Memphis Medical College. He served an internship at the government hospital in Hot Springs. He later took postgraduate work at Tulane University and Boston Medical College.

Dr. Hughes had served the Randolph County Medical Society as president and secretary several times.

DR. THOMAS E. HODGES, aged 75, one of the founders of the Little Rock College of Physicians and Surgeons, which later became part of the University of Arkansas School of Medicine, died at his home in Rogers, March 25th, following an illness of about 10 weeks.

Dr. Hodges was born at Cane Hill, October 16, 1858, and was educated in the Cane Hill Presbyterian College. He completed his medical education in 1888 at the University of Arkansas School of Medicine and returned to Cane Hill where he engaged in the practice of medicine until 1900.

In 1900 he moved to Little Rock where he resumed the practice of medicine, and in 1906 he joined a group of Little Rock physicians and surgeons in establishing the College of Physicians and Surgeons.

Ill health forced him to give up his practice in Little Rock, and in 1914 he moved to Rogers where his practice was resumed on a limited scale. In 1918 he moved to Garfield to take over the practice of his son, Dr. Guy Hodges, who had enlisted in the United States Army. He continued to practice there until 1920, when he returned to Rogers.

E. MEAD JOHNSON, aged 84, died March 20th. He was the president of Mead Johnson and Company and had devoted his life to the manufacture of standard, strictly ethical preparations, universally used by the medical profession.

DR. J. B. KILGO, aged 79, a retired physician, died at War Eagle, April 14th.

DR. L. G. McELHANY, aged 55, died at his home at Success, April 13th.

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JUNE, 1933 — MAY, 1934

Abbrevlations: Original Article (O); Editorial (E); Abstract (A); Obituary (Ob); Resolutions (R); Special Article (Sp); Book Revlew (BR).

Book Reviews

The Practical Medical Series of Year Books: Series 1932. The Year Book Publishers, Inc., Chicago, Ill. General Medicine, edited by George H. Weaver, M. D., Lawrason Brown, M. D., George R. Minot, M. D., S. D., William B. Castle, M. D., William D. Stroud, M. D., and Ralph C. Brown, M. D. Price $3.00

Among many advances given for the year are a more perfect serum for tularemia and further reports on treatment of malaria with Atebrin combined with Plasmochin; prevention of measles in private practice by the injection of blood from adults, who have had measles, into children exposed to the disease; the use of insulin in treatment of anorexia in non-diabetic tuberculous patients and serum treatment of pneumonia in choice cases. Especially interesting are the advances made in treatment of pernicious and related anemias.

The Colon, Rectum and Anus. By Fred W. Rankin, B. A., M. A., F. A. C. S.; J. Arnold Bargen, B. S., M. D., M. S. in Medicine, F. A. C. P.; and Louis A. Buie, B. A., M. D., F. A. C. P. 812 pages; 435 illustrations. Philadelphia: W. B. Saunders Company, 1932. Price $9.50.

This comprehensive monograph is from the Mayo Clinic and generally speaking, adheres to the surgical viewpoint in the consideration of therapy. However, the internist will find much of value especially on parasitic diseases, functional disorders and chronic ulcerative colitis. This latter section is most instructive, dealing with both the clinical and pathological aspects of chronic ulcerative colitis and details Bargen's investigations leading to his consideration of the diplococcus as of etiological importance. Clinical signs, symptoms and the roentgen-ray findings are fully discussed in all instances. The various surgical procedures are fully considered.

The Surgical Clinics of North America. Published Bi-monthly. Volume 13. Number 2. New York Number, April, 1933. Philadelphia and London: W. B. Saunders Company.

This issue is of particular interest to the obstetrician and the gynecologist, containing interesting articles by Burton J. Lee on the significance of bleeding from the nipple and by Howard C. Taylor, Jr., on chronic mastitis. Malloy discusses the use of Pernocton as an analgesic in obstetrics. The usual standard of the series is well maintained.

If he can look interested and yet not hear a word you say, he has been practicing medicine about 20 years.

Heart failure is also the doctor's nice way of saying you attended a big dinner and made a pig of yourself.

The Secretary of the County Society will please notify the State Secretary immediately of any error or change in these officers.

COUNTY SOCIETIES

OF THE

ARKANSAS MEDICAL SOCIETY, 1934

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